NOMINATION DOSSIER

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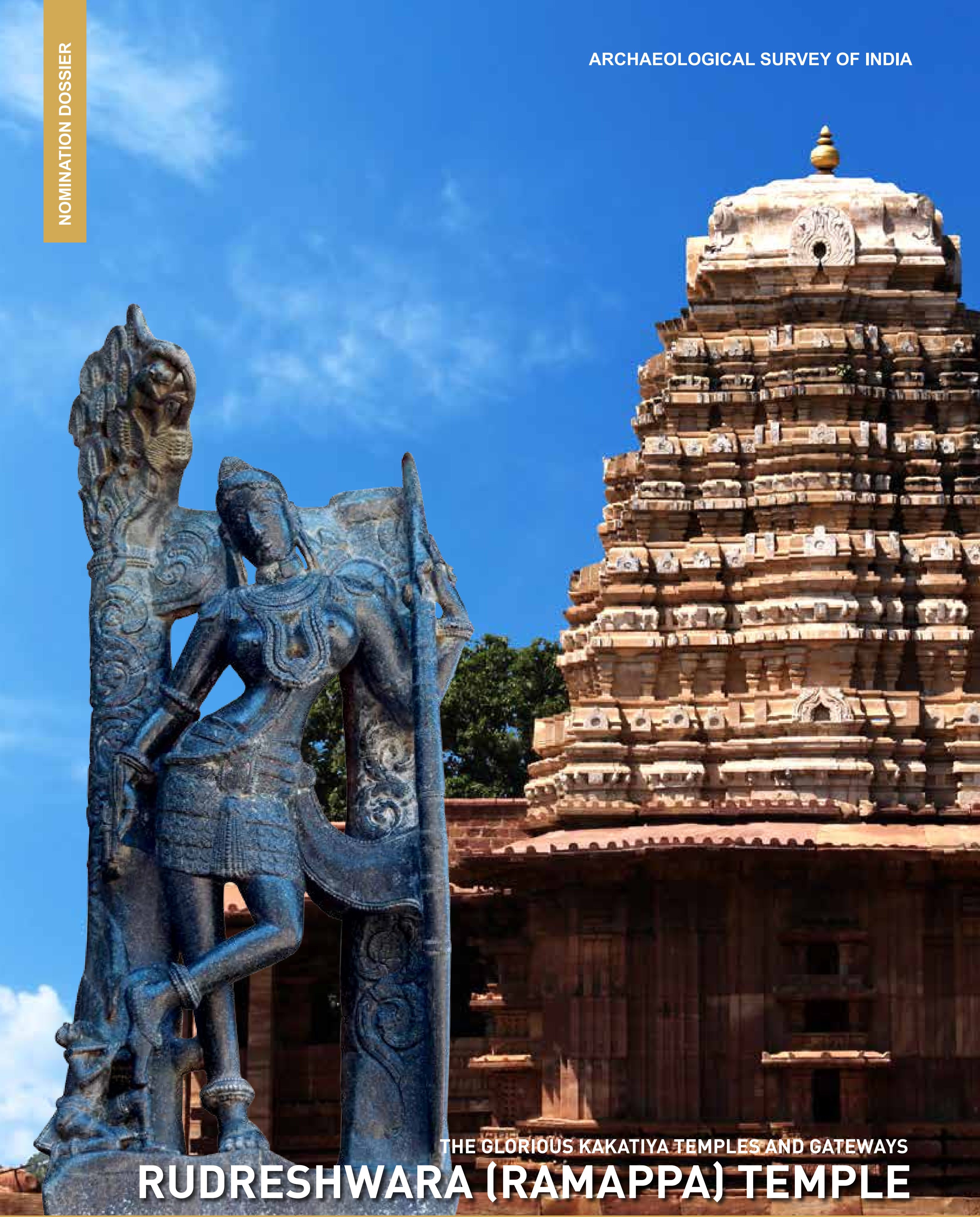


THE GLORIOUS KAKATIYA TEMPLES AND GATEWAYS

RUDRESHWARA (RAMAPPA) TEMPLE

AT **PALAMPET** (JAYASHANKAR BHUPALPALLY DISTRICT), **TELANGANA STATE, INDIA**

AS WORLD HERITAGE SITE

UNDER **CULTURAL** CATEGORY
BY **UNESCO - World Heritage Convention**

CHAPTER 2

DESCRIPTION

2.a DESCRIPTION OF PROPERTY

Rudreshwara Temple, popularly known as Ramappa Temple is a living legend of the Kakatiya dynasty is one of the master pieces of Kakatiya art, architecture and technology.

2.a.i. Geography

Rudreshwara Temple, popularly known as Ramappa Temple is a living legend of the Kakatiya dynasty is one of the master pieces of Kakatiya art, architecture and technology.

The Temple of Rudreshwara is in a small village of Palampet in Jayashankar Bhupalpally District, Telangana.

Jayashankar Bhupalpally lies on an ecological frontier that separates the eastern edge of the Deccan dry inland plateau from the wetter and more fertile coastal plain.

It is located about radially north-east of Warangal, the then capital Orugallu. The temple is strategically located on the foothills of the reserve forest with the Ramappa Cheruvu on the south of the hill.

The temple is located amidst of an agricultural field which was once an important city- Palampet during the Kakatiya period[1].

Hindu Temples were constructed on sites which satisfy the canons of beauty, religious sanctity, convenience and architectural stability.

> *“The gods always play where groves are near rivers, mountains and springs, and in towns with pleasure garden.”*
>
> Brihat Samhita, LV. 8. “Bhavishya Purana, I, CXXX. 15.

a) Geology of the area

The Ramappa Temple is situated on the downstream side of Ramappa Tank and the rocks in the area are essentially sand stones, which belong to *Chelvai* series of the Pakhal basin belonging to Precambrian age and are pink coloured medium grained with silicious matrix. These are traversed by a large member of vertical and inclined joints along with well-defined bedding planes with high porosity and transmissibility with moderate compressive and tensile strengths. The lineaments identified in the area are in the direction of NNE-SSW, NE-SW and E-W. The E-W lineament is passing very closer to temple.

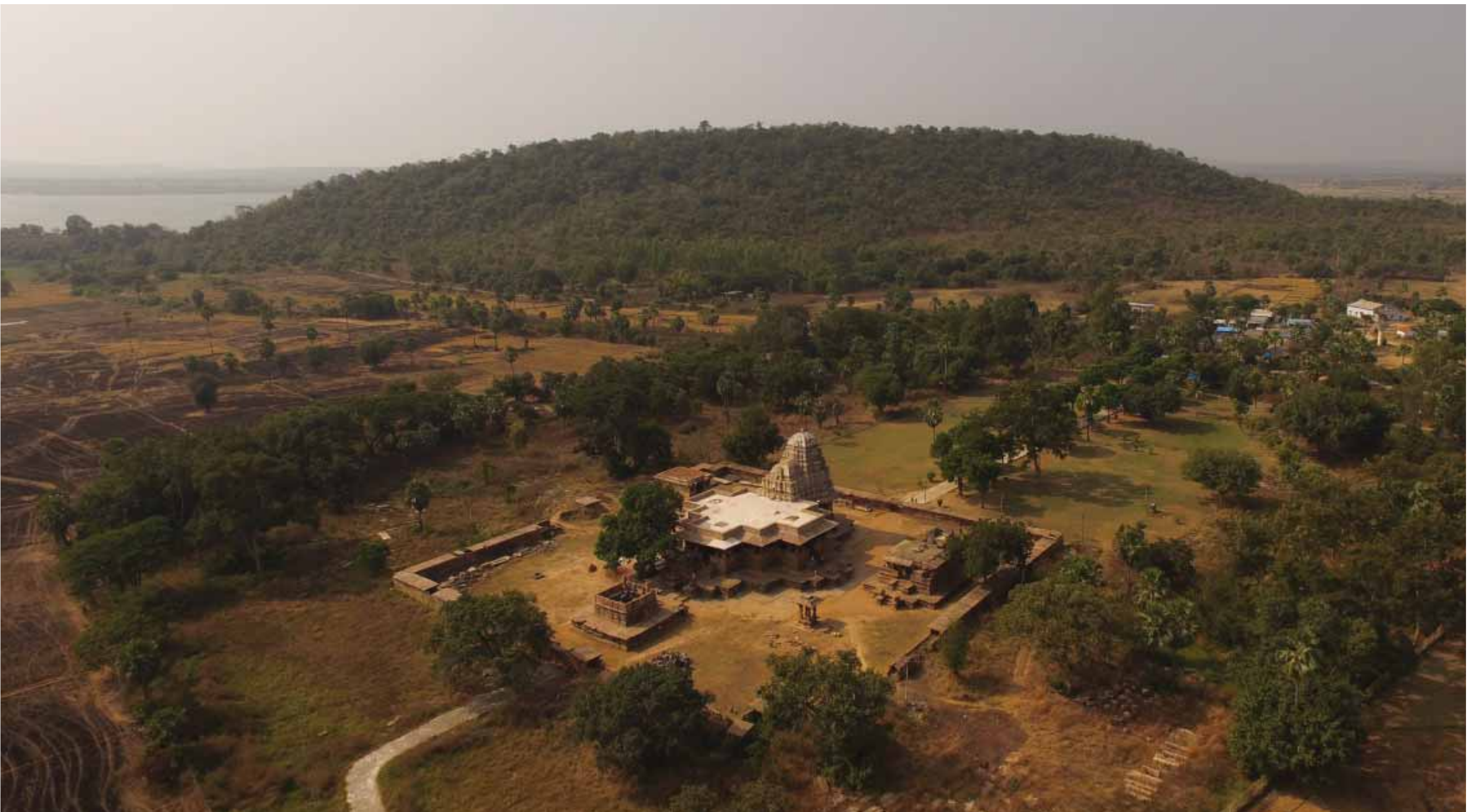
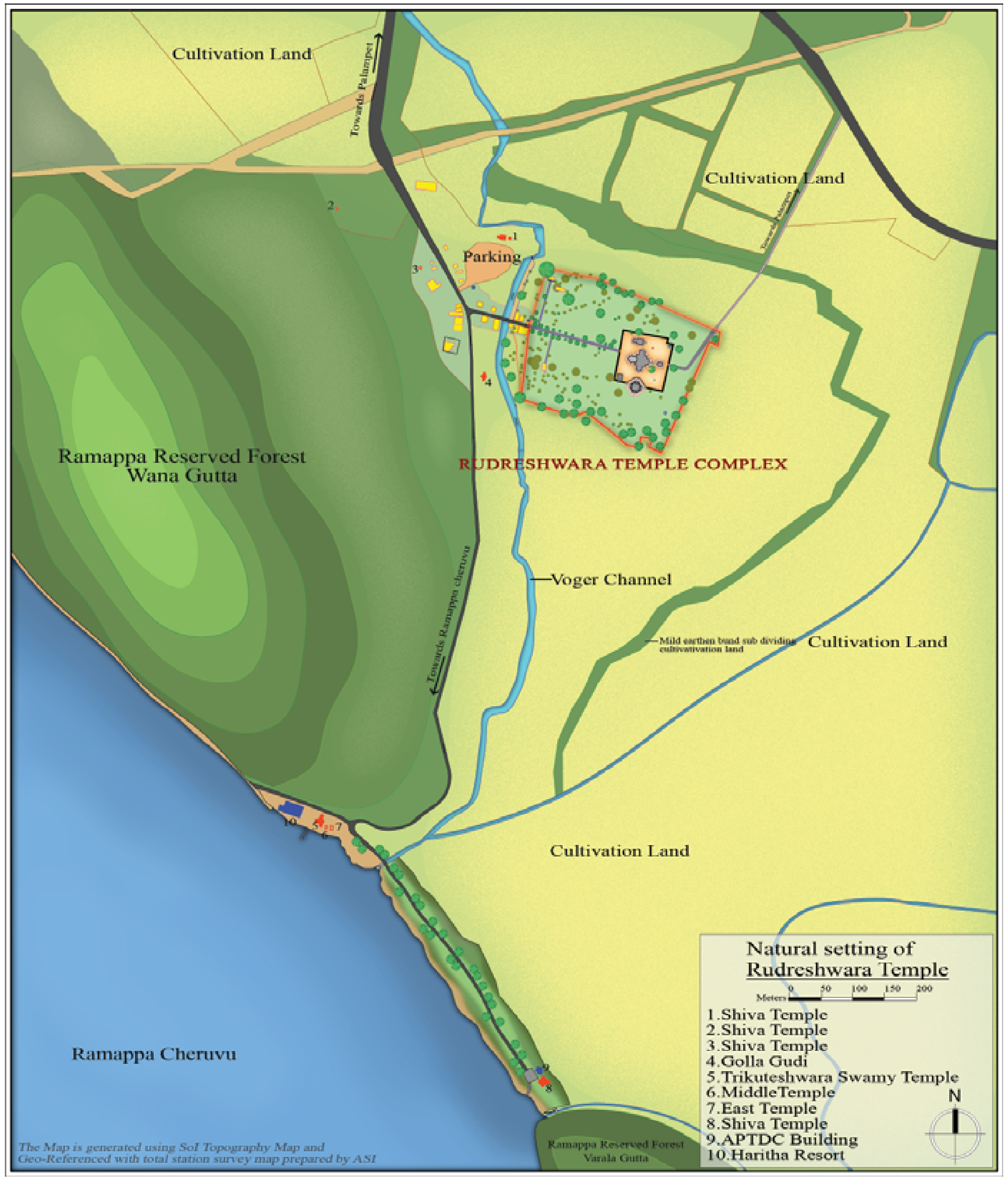


Image 2.1: The natural setting of Rudreshwara Temple blended with serenity of lake, hill and fields

b) Temple surroundings

Rudreshwara Temple was built as the chief temple of the region, later flourished and spread with numerous minor temples in the surrounding.



The Map is generated using SoI Topography Map and Geo-Referenced with total station survey map prepared by ASI

Map 2.1: Topography Map of The Rudreshwara Temple and its surroundings

2.a.ii. Temple complex (core zone)

The core zone of the property constitutes the Rudreshwara Temple complex enclosed in the *Prakara* wall and the adjacent area demarcated by the Archeological Survey of India (ASI) for the protection of the heritage structure.

> “*The temple is conceived as a place of transit, a ford or crossing-place (tirtha). There is a symbolism of the passage through the doorways which is connected with the idea of transition from the temporal to the eternal.*[2]”
>
> - George Michell

The plan of a temple chiefly depends on its spatial organization.

All the components in the complex are oriented on the east-west axis and face the east, towards the rising sun following the *Vastu shastra*.

The main temple is in the stellate plan and has *Garbhagriha, Antarala* and *Sabha-Mandapa* adorned with porches and figures placed in the center of the courtyard. In the temple complex, the *Nandi Mandapa* becomes the first visual reference to the complex. The *Nandi Mandapa* leads into the temple proper from the *Pradakshinapatha*.

Another temple has *Garbhagriha, Antarala* and *Sabha Mandapa* is found to the north of the main temple. Besides these temples, there is a spacious pillared *Mandapa* located to the south of the main temple. The *Upapitha* on which it stands is star shaped in plan. Towards the south-west of the main temple there is a small room which is now called *Pakashala*. A small *Mandapa* having four pillars supporting its flat roof housing a pillar on that has engraved the inscription of the famous Recharla Rudra is placed to the North–East of the main temple.

This reveals the maintenance of perfect architectural harmony and unity in the spatial organization of the temple.

Many of the built form elements of the temple are separated and there is a proliferation of buildings which all combine to function as a temple.

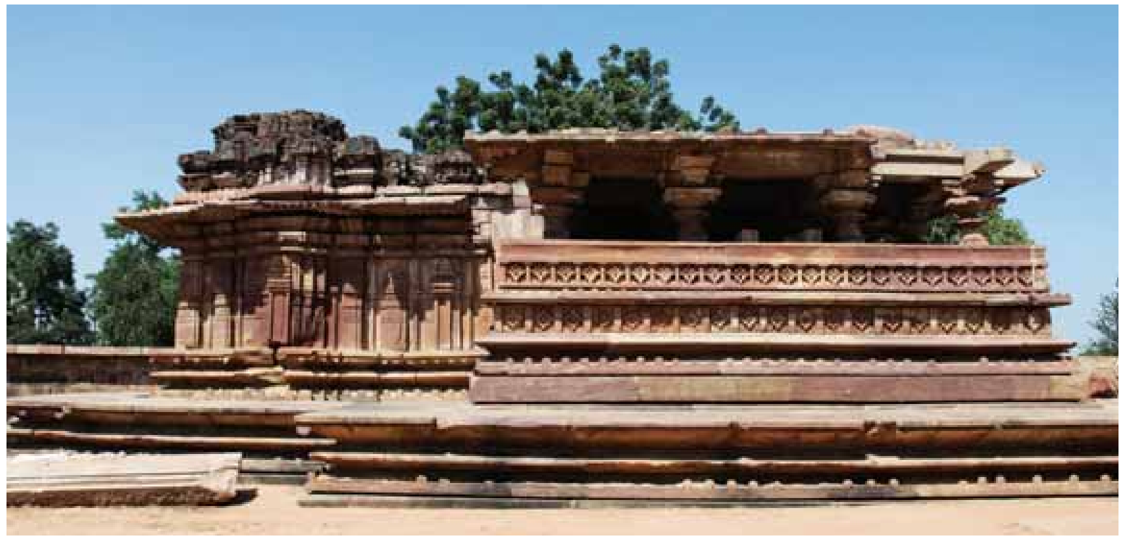
a) Kateshwara Temple

Located to the North of the main temple there is a temple dedicated to Lord Kateswara. It consist of a *Garbhagriha,* an *Antarala* and a *Sabha Mandapa*. The temple is constructed on a high *Upapitha* and is approached by a flight of steps. On either side of the steps elephant monoliths were beautifully carved in stone.[3] The carvings on the exterior of the building are plain, consisting of two bands of leaf pattern. Around the hall runs a platform on which eight small cells for images have been built. Several of these cells have fallen down, but two of them are still intact and contain images of Vishnu and Ganapati carved in dolerite. The door of the shrine is beautifully carved and the friezes represent Siva in *tandava* pose.

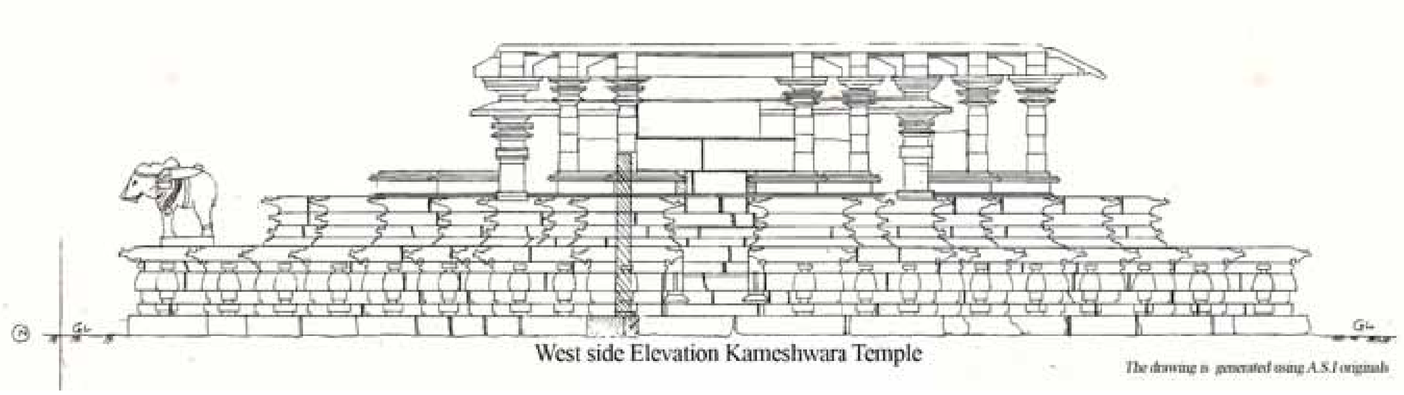
b)Kameshwar Temple (Kalyana Mandapa)

Situated to the south of the main temple, this temple is placed on a stellate *Upapitha* consisting of a spacious pillared *Mandapa* with small cells on its eastern and western side. The *Mandapa* has four pillars enclosing a square space in the middle. The ceiling had some fine carvings with blossomed lotus. Near the steps of the temple, stands a pair of monolithic stone elephants.

According to the inscription of Recharla Rudra, this structure to the south of the main temple is called Kameshwara Temple. It is presently known as the *Kalyana Mandapa* for its absence of *Garbhagriha* and symmetrical entry from the four cardinal directions.



▲ Image 2.3: Southern view of Kateswara Temple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West side Elevation Kameshwara Temple
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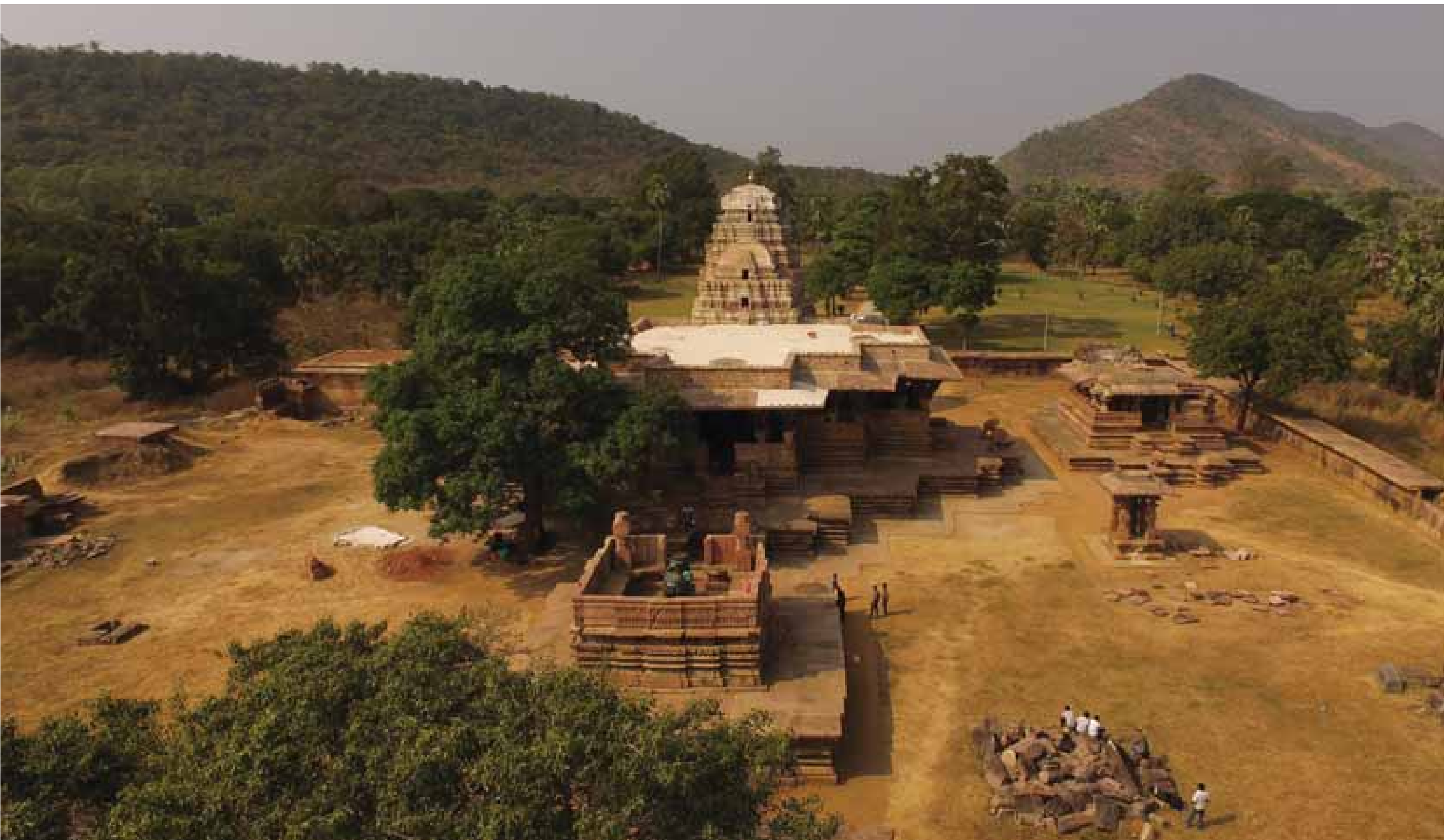
▲ Figure 2.1: West side elevation of Kameshwara Temple as seen in 2011



◀ Image 2.2: Aerial view of Rudreshwara Temple

Image 2.4: *Pakashala*

c) Pakashala

Towards the south west of the main temple, is a small room now known as *Pakashala*. It was earlier the kitchen where the food was served to the devotees.

d) Nandi Mandapa

There is a *Nandi Mandapa*, the first structure of the temple complex situated in front of the eastern portico of the main temple. It has an imposing *Upapitha* and impressive *Adishtana*. The *Vedi bandha* is adorned with carved panels bearing floral designs and figures of elephants and of musicians in successive rows. The roof and the pillars of the *Mandapa* can be seen fallen down. It is a closed *Mandapa* with four pillars built for the purpose of giving shelter to *Nandi*, the vehicle of Lord Siva. The *Nandi* is cut out of a huge monolith rock of dolerite. The marvelous smoothness and polish of the bull's back body and the extraordinary skill displayed in carving the numerous details of its ornamental hangings are commendable. The splendid neutrality that characterizes the look and the posture of the *Nandi* make this image of *Nandi* one of the glorious triumphs of the Kakatiya art. A unique feature of this *Nandi* is that from which every angle you look at its face; it appears to be looking at the on-looker.

Image 2.5: *Nandi* rests on the *Upapitha* of the *Mandapa*

e) Inscription pillar

A small *Mandapa* having four pillars supporting its flat roof houses a dolerite pillar on which is engraved 201 line inscription of the famous *Recharla Rudra*. This pillar inscription is major source of information, which informs about the temple and other works of *Recharla Rudra*, the general who built the temple.

Image 2.6: Inscription of Recharla Rudra in the temple premises.

f) Rudreshwara Temple

This temple is in a stellate plan (*Trikuta* temple form) placed on a star shaped *Upapitha*. The plinth of the plat-form had been divided into a foliating surface, which gives a very pleasing effect to the general appearance of the monument. The sanctum is on the western side and towards the East, North and south the temple has porticoes with beautiful, almost life size figures of maidens (*Madanikas*) on either side of the doors of these porticoes. The temple has a *Garbagriha* preceded by an *Antarala*, *Sabha Mandapa* with ornamental pillars at the four corners and sculptured inner roof.

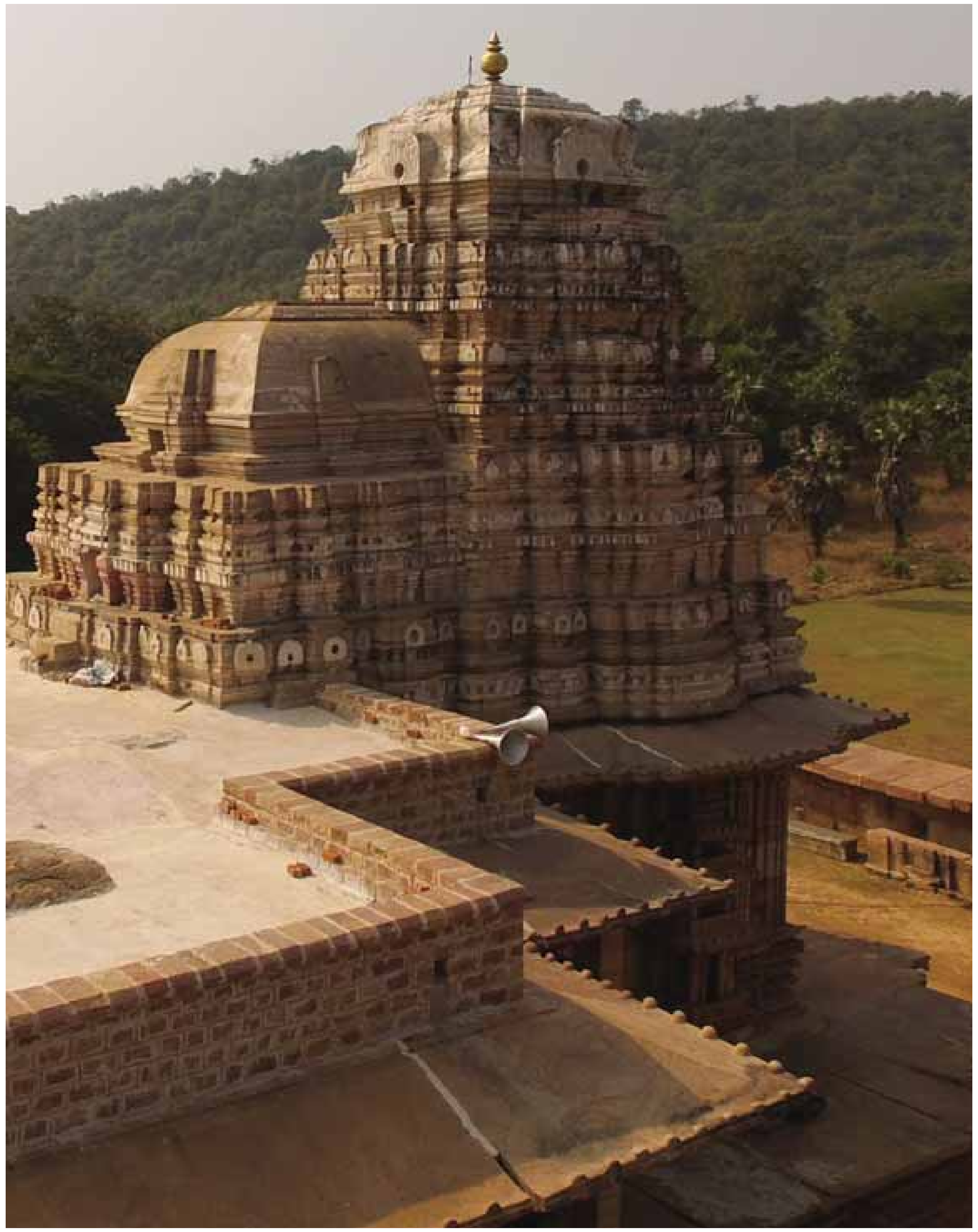


Image 2.7: *Vimana* of Rudreshwara Temple.

2.a.iii. Material

Architecture, a man's physical expression of culture is mainly determined by the physiography of a country. Temple architecture in Telangana is closely related to the rocks in the area because the temples were constructed mostly with the stone quarried locally.

The architects of the Kakatiyan period had exploited various stone deposits with their knowledge in identifying the building materials, their strength and their expected life. Building material, together with its tonal values, texture and structural possibilities affects the local traditions[4].

Locally available materials such as; Sandstone, Granite and Dolerite are used in the temple construction.

The architect used sand for foundations and in preparing lime mortar. Pink *Chelvai* sandstone is mainly used in the construction of the temple.

The Kakatiyas used sandstone for the main temple, but the beams of the temple are carved out of Granite, Dolerite and sandstone.

a) Floating brick

i) The *Vimana* is made up of light weight porous bricks in order to reduce the load of the super structure.

ii) These bricks float on water with a density ranging from 0.85gm./cc to 0.90gm/cc, which are highly porous and with very low permeability and take higher strengths exceeding 30kg/cm^2 unlike the normal brick which takes about 20kg/ cm^2 with a density of about of 2.2gm/ cc.

iii) These light and spongy bricks are brown in colour and unusually big in size 14" x6" x4" weighing almost 3 Kgs[5].

The light and porous bricks of the spire served a definite purpose. The spire was required to be made light so that the load on the stone roof would be reduced considerably. The spire itself was hollow inside resulting in a reduction of load on the supporting columns. The lightweight porous bricks with their smoothened surfaces reduced the absorption of moisture.

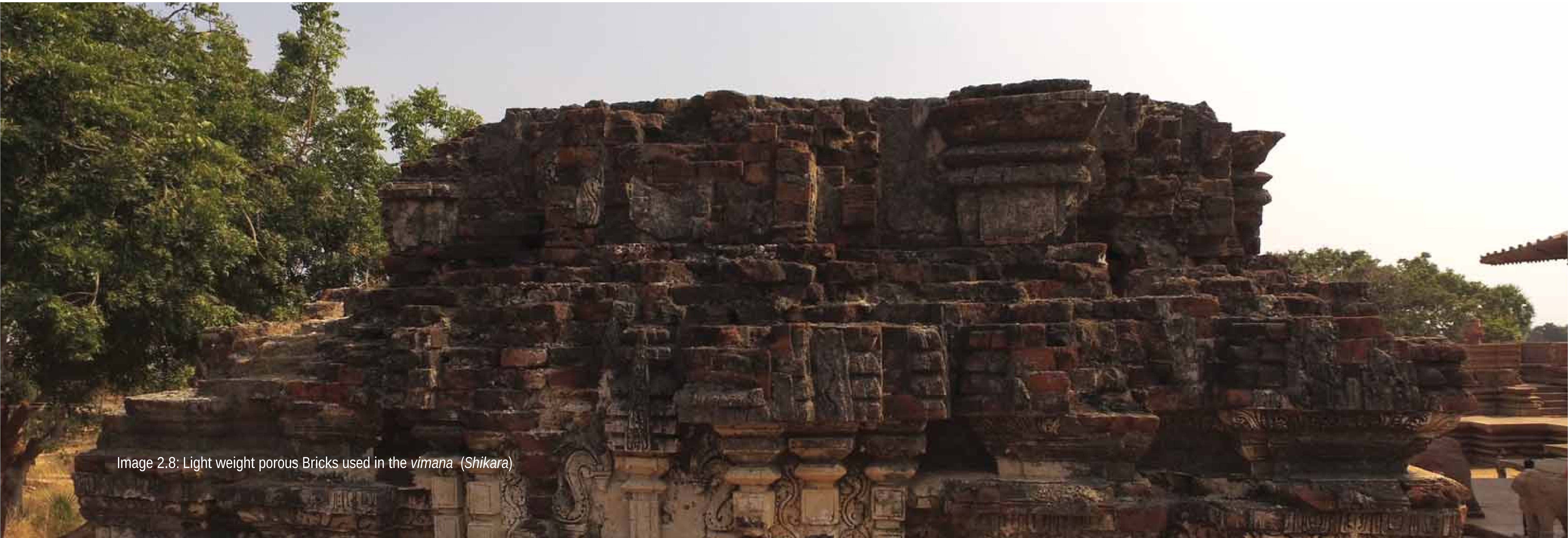


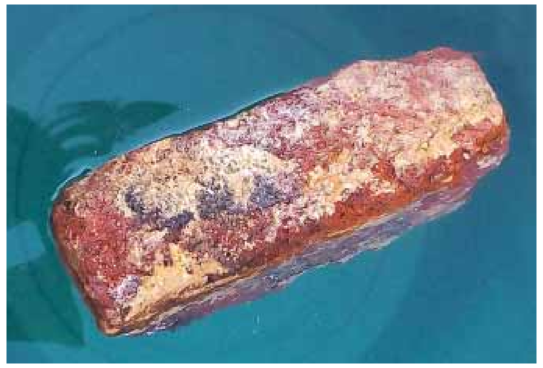
Image 2.8: Light weight porous Bricks used in the *vimana* (*Shikara*)

Making of the floating bricks

The architects at that time might have realized the need for such bricks and formulated the composition, presumably using locally available clay from the tank beds (Kaolinite clay) mixed with organic resigns like gum *Karea* (available in the forests) along with jute and rise husk and burnt the same in specially designed kilns at optimal temperatures. The organic resins at higher temperatures got volatilized leaving behind holes which are not interconnected like the pumice in volcanic eruptions.

This has resulted in enhanced porosity with very low permeability and density less than water. This kind of a material has not been found any where across the world in the medieval era making this a man-made engineering genius[6].

The elements used in the construction mainly used medium and heavy size elements. It is observed that medium and heavy size elements were used to reduce the number of joints and to make the structure as monolithic as possible although their transportation, lifting and placement in position at different elevations might have posed serious problems. Heavy sized elements were used in columns because of their massive nature.



▲ Image 2.9: Floating brick of Ramappa Temple adorned in the *Shikara*

Image 2.10: Polished Dolerite Stone withlustrous finish

b) Dolerite

Dolerite is an igneous hypabyssal rock which is fine grained micro-crystalline black rock used for the making of pillars, jambs, lintels and its motifs[7].

Dolerite is an extremely tough stone to carve, but once cut and polished, endures for all time, hence used in making the bracket figures and columns, which were very exquisitely carved and have taken mirror like polish with its fine grained microcrystalline texture.

Compressive strength of Dolerite ranges from 2000-3000 Kg/cm^2, the highest in the history of construction materials[8].

Dolerite rocks were employed as columns for taking heavy loads, wherever necessary.

c) Sandstone

The rocks in the area are essentially sandstones, which belong to *Chelvai* series of the Pakhal basin belonging to pre-Cambrian age. Pink coloured, medium grained *Chelvai* sandstone with siliceous matrix is extensively used in the entire construction. Those are traversed by a large member of vertical and inclined joints along with well-defined bedding planes with high porosity and transmissibility with moderate compressive and tensile strengths[9].

The sandstone used here has a compressive strength range from 600 to 1000Kg/cm^2. Tensile strength varies from 50 to 80Kg/cm^2.

Though the entire temple is built with *Chelvai* sandstone, some of the major columns where concentrated loads are coming, the Kakatiyas have used the well carved dolerite rocks as pillars in the central *Mukha Mandapa* and sandstone floor beams are used beneath these pillars[10].

Image2.11: Sculpture of *Surya* and *Gaja Vyala*

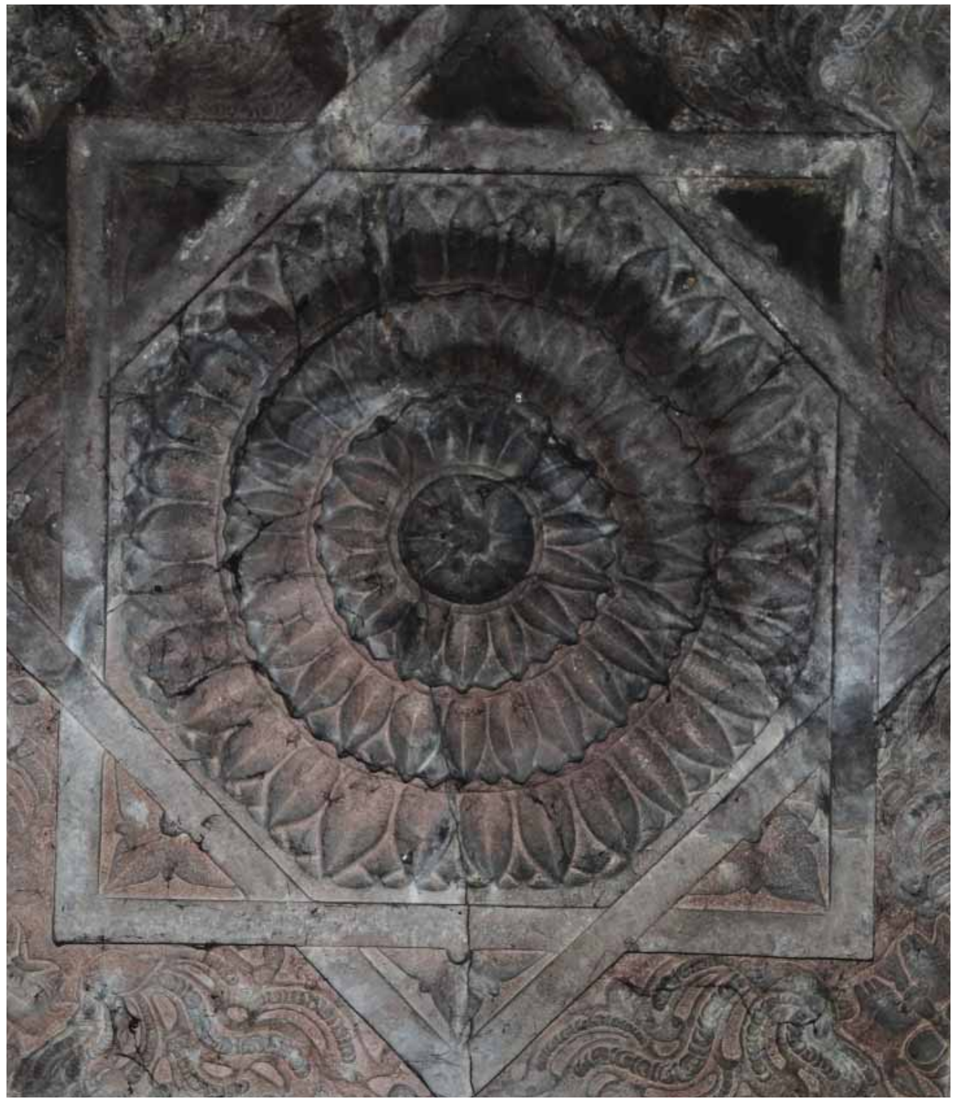


Image 2.12: Granite used in making the ceiling of the *Sabha Mandapa*

d) Granite

Granite is used in making the columns and beams of the temple where the intensity of load is very high.

The compressive strength of granite ranges from 1000 to 2000 kg / cm^2 its tensile strength ranged from 100 to 160 kg / cm^2.

2.a.iv. Rudreshwara Temple

A temple is a combination of different components, arranged on vertical axis in an order so as to imbibe an aesthetic and ritualistic character. Provision of path for circumambulation around the main shrine, ventilation, creation of space for doorways, according to the principles of *manduka mandala*, were followed by the Kakatiya architects for the construction of the Rudreshwara Temple[11].

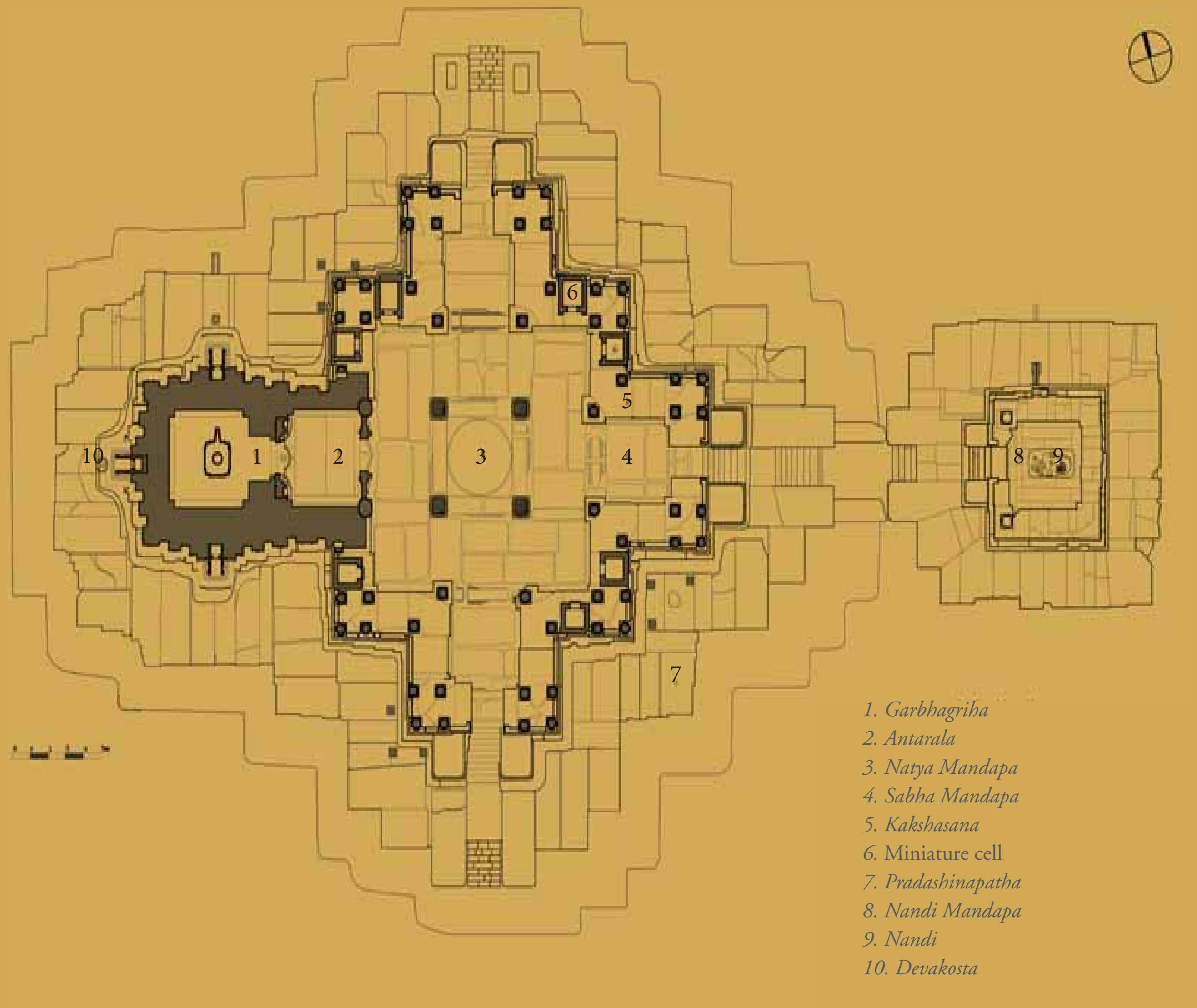


Figure 2.2: Ground Plan of the Rudreshwara Temple

The entire proportionate system of temples has been founded on the principles of visual coordination and perception at the human eye level. These proportions could be achieved with the composition of *Upapitha, Adhisthana, padavarga, prastara* and the *vimana* of the temple. The temple is a hall-temple meaning, only the shrine is enclosed by walls. Whereas the hall and the porches are open and have a short parapet wall.

Upapitha

The wide base provided by the *upapitha* gives a broad platform to the entire temple, enhancing the beauty and by giving the required height to the building.

Prastara

Prastara creates a division between the roof and the wall breaking the monotony of the vertical elements and is the base for the roof.

1) Vimana

The *Vimana* is composed of different measurements and is the most elegant and distinctive feature of a temple symbolizing ‘from *sthula* to *sukshma*’ i.e. from mass to pinpoint.

It is a storied pyramidal *Vimana* of *Vesara* order. It is a five storied temple composed of four horizontal layers (*bhumis*) topped by the Dravidian *Shikara*.

The superstructure, in spite of its countless projections and recesses, is principally square on plan and perfectly pyramidal in shape[12].

> *“On the top” of this temple (i.e. the Rudreshwara Temple) shrines distinctly the golden cupola illuminating the space of the sky, always, having the brilliance of a vast sun’s orb, standing on the lofty peak of the eastern mountain*
>
> Record from the inscription of Recharla Rudra dated to 1213 AD. in the Rudreshwara Temple Complex.

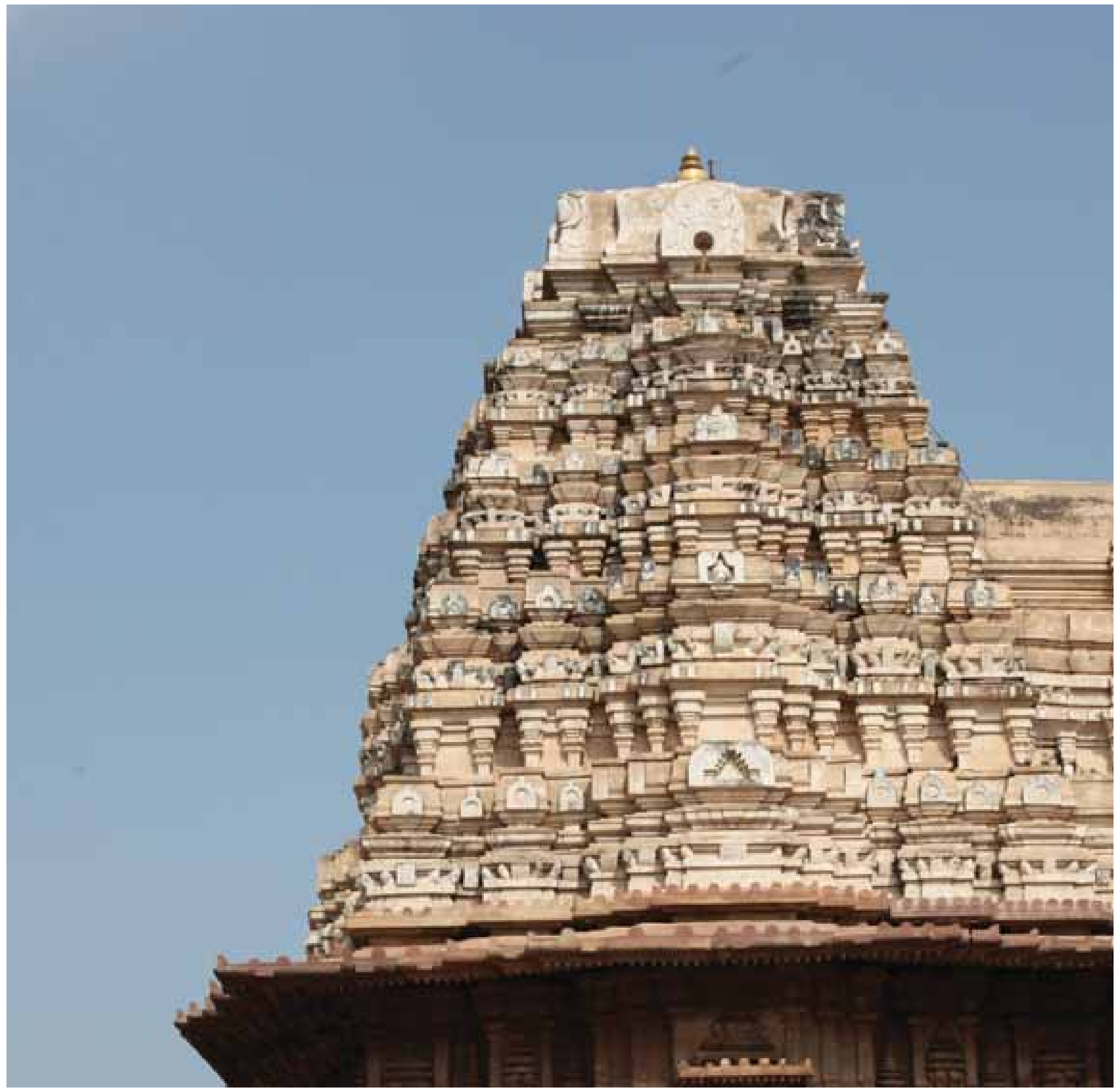


Image 2.13: *Vimana* of the temple converges to the skies

2. Sabha Mandapa

Sabha Mandapa is the covered hall consisting of spaces for the devotees. It consists of the three entrance porches- *Mukha Mandapa*, seating spaces called *Kakshasana* and platform for dancers *Natya Mandapa*.

Sabha Mandapa is built with 9 bays i.e. *Navaranga* supported by 16 pillars.

It gives the devotees the first insight of the *Linga* of Rudreshwara.

Sthamba

Pillar or *Sthamba* is the most important architectural as well as artistic member that increases the elegance of the temple by distributing the spaces by its very nature of verticality. *Brahmakanta sthamba* type of pillar from the *Shilpasastra* is followed. In the temple, two types of pillars are used i.e. *Sthambas* and *Ardha-sthambas*.

The pillars on the *Kakshasana* are the *Ardha-sthambas* giving support to the bracket figures, *Kapota* and the ceiling overhead.

Four pillars of dolerite are arranged round the pedestal in the shrine demarcating the stage for performance in the *Sabha Mandapa*.

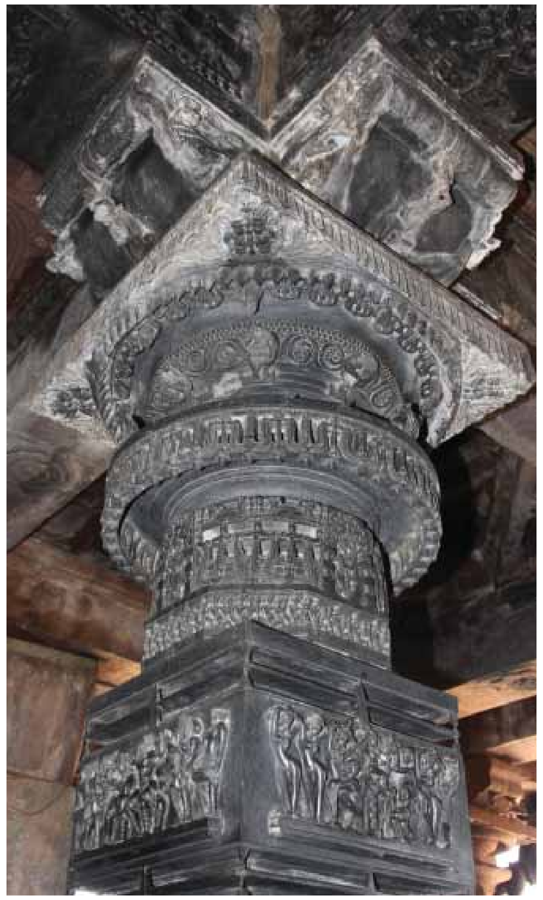


Image 2.14 :*Bhramakanta Sthamba* of the *Natya Mandapa*

Kakshasana

Kakshasana is the raised platform along the parapet of the *Sabha Mandapa* developed into an ornamental feature adding to the architectural value of the interiors of the *Sabha Mandapa*. *Kakshasana* acts as a stone seat with the sloping parapet as the back rest; and as a platform for placing the miniature cells.

Miniature cells

These are eight 4' x 4' small cells placed on the *Kaskhasana* around the periphery of the *Sabha Mandapa* to house the associated deities. They are built using large sandstone blocks. The doorways of these cells are ornamented.

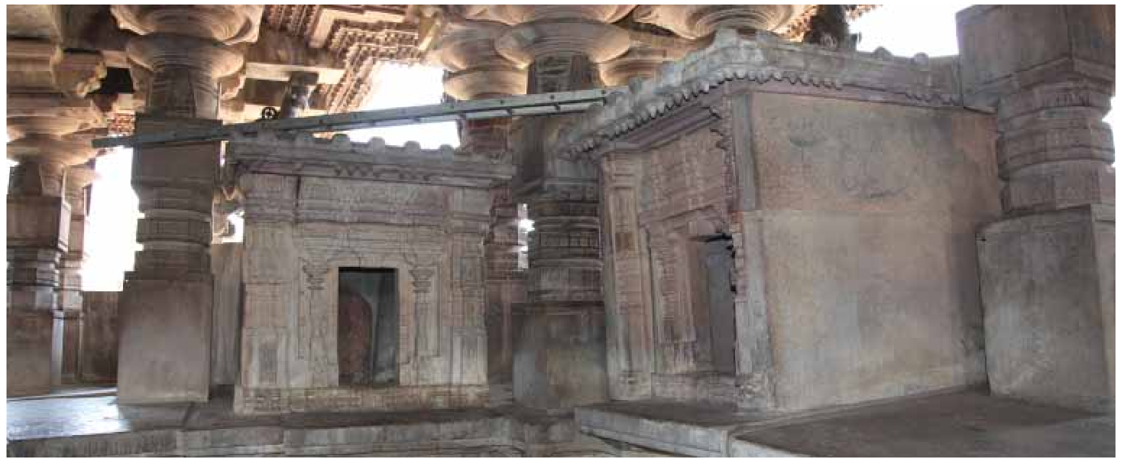


Image 2.15 :Miniature cells placed on the *Kakshasana*

3.Natya Mandapa

The four profusely carved dolerite pillars demarcate this circular stage *Rangabhoomika* where the dancers pay tribute to lord Rudreshwara. This part of the temple is the most plentifully carved and consists of some of the best sculptures of the Kakatiyan era carved on the hard stone of dolerite. The floor of the *Natya Mandapa* is a slightly raised platform to demarcate it position from the *Sabha Mandapa*. The beams, ceiling and pillars of the *Natya Mandapa* are wisely used to depict mythological stories from *Puranas*.

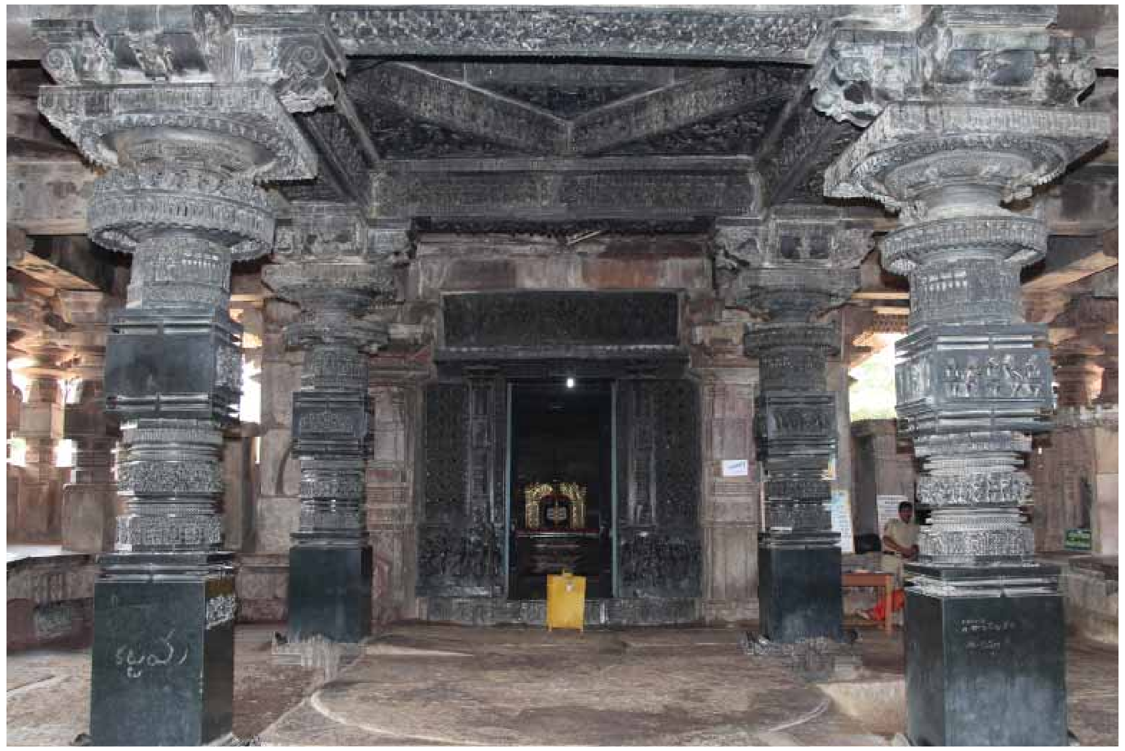


Image 2.16: *Natya Mandapa*, the platform for performance

4. Ardha Mandapa

Ardha Mandapa is the enclosed space which prepares a devotee to enter the *Garbhagriha*. *Ardha Mandapa* is marked by the *Antarala dwara* to the East and the *Garbhagriha dwara* on the West, and miniature cells on the either sides on the wall.

The doorway to *Ardhamadapa* consists of perforations in the form of floral scrolls to allow sufficient light to enter the *Garbhagriha*. The composition of the doorway is such that the light entering the *Garbhagriha* is focused mainly on the statue of the *Linga*.

Image 2.17: *Ardha Mandapa*, the entry to the sanctum sanctorum

5. Garbhagriha

Garbhagriha is the enclosed space to the sanctum sanctorum. It is enclosed in the lofty cavity walls providing sanctity and security to the idol. The *Garbhagriha* is topped with the pyramidal shaped *Vimana* adding the cosmic value to the temple.

The approach doorway to the *Garbhagriha* is the most articulated doorway designed by the Kakatiyas. It doesn't have any form of perforations to restrict the light and disturbance coming to the sanctum sanctorum.

The Siva *Linga* stands on the *Panavatta*.

The Kakatiyan architects were very careful in designing the *Garbhagriha*. They had taken care of the removal of the liquid offerings made to the god by giving a water channel to extricate through the cavity wall and pouring into the bowl placed in front of the devakostha at the North wall of the *Garbhagriha*. From the bowl the water is channelized to the *Upapitha* and exits the temple through the rain water harvesting channel along the base of the main temple.

> “*The sacredness of the image in the 'womb' of the temple expresses itself as a powerful force whose influence expands outwards: hence the potency of sacred images that are aligned with these forces.*”
>
> \- George Michell

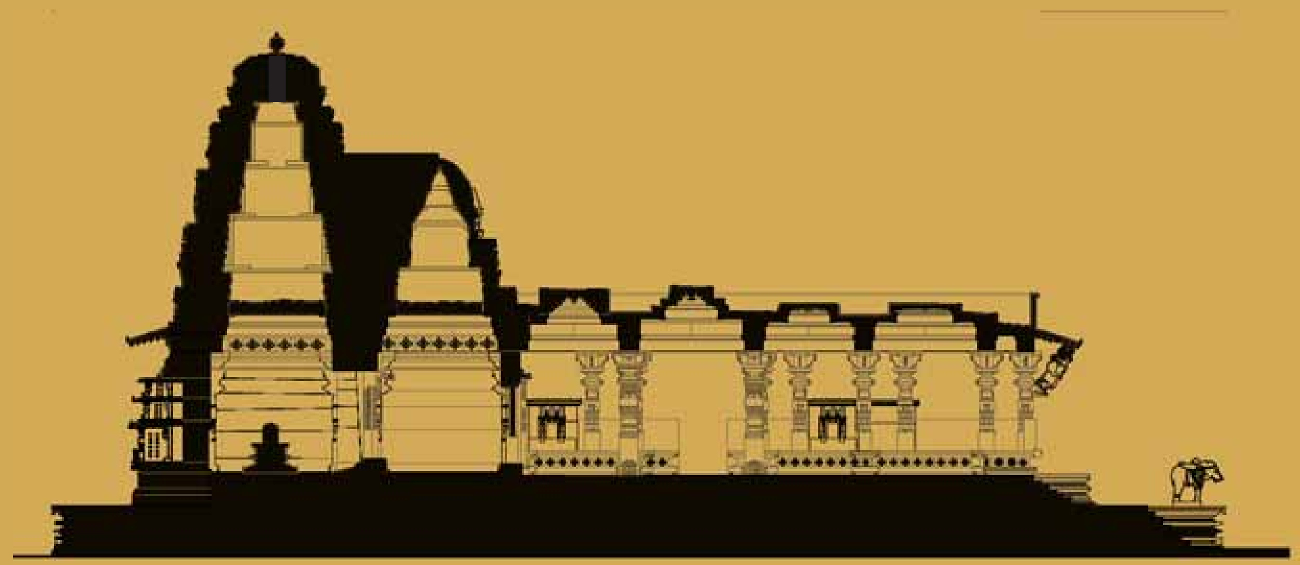


Figure 2.3: Spatial composition in Rudreshwara Temple

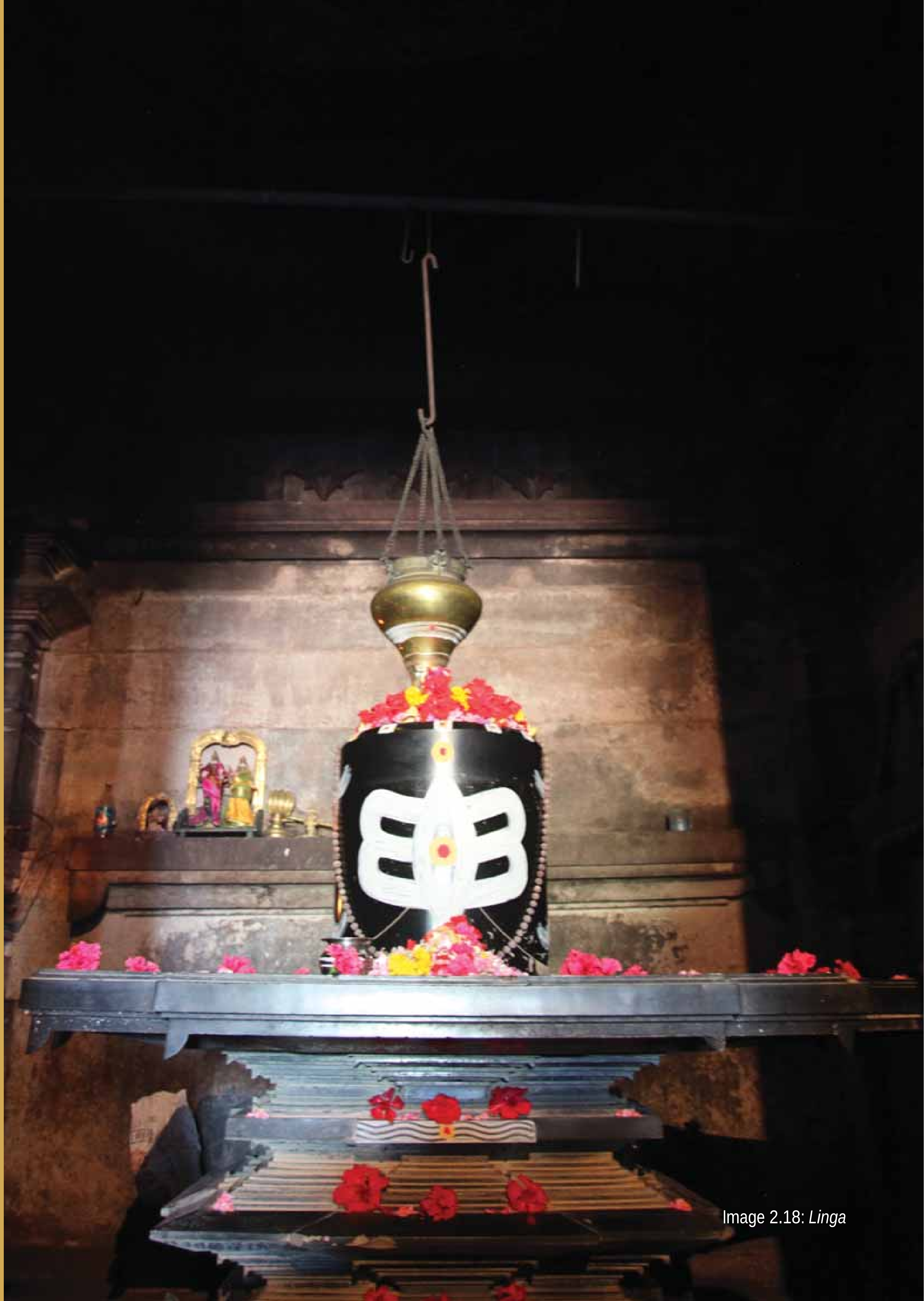


Image 2.18: *Linga*

6. Pradakshinapatha

The top slab of *Upapitha* is a 10' wide platform creating *Pradakshinapatha* of the temple. Aedicule (*Devkostha*) for idols of other Hindu deities and other sculptures present throughout the journey takes the devotee through the visual experience of different dimensions of the celestial world.

The circumambulation takes place in a clockwise direction starting from the south *Mukha Mandapa*. In the path of circumambulation, the devotee experiences the sculptures and *Devakostas* on the exterior wall of the temple.

Throughout the circumambulation, bands of friezes are found on the *Adhisthana* and the *Vedika* of the wall. These rows of friezes consists of:

i. *Pattika*
ii. *Alpa-Padma*
iii. *Tripatta*
iv. Band with elephants and gods carved on it
v. *Pattika* with hanging semi-circular stones

These bands give uniformity and unite the whole composition of the exterior of the temple.

Image 2.19: Chisels of the *Adhisthana*

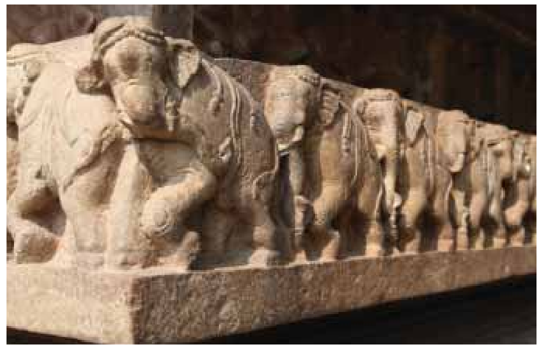


Image 2.20: Elephants band sculpted on the *Adhisthana*

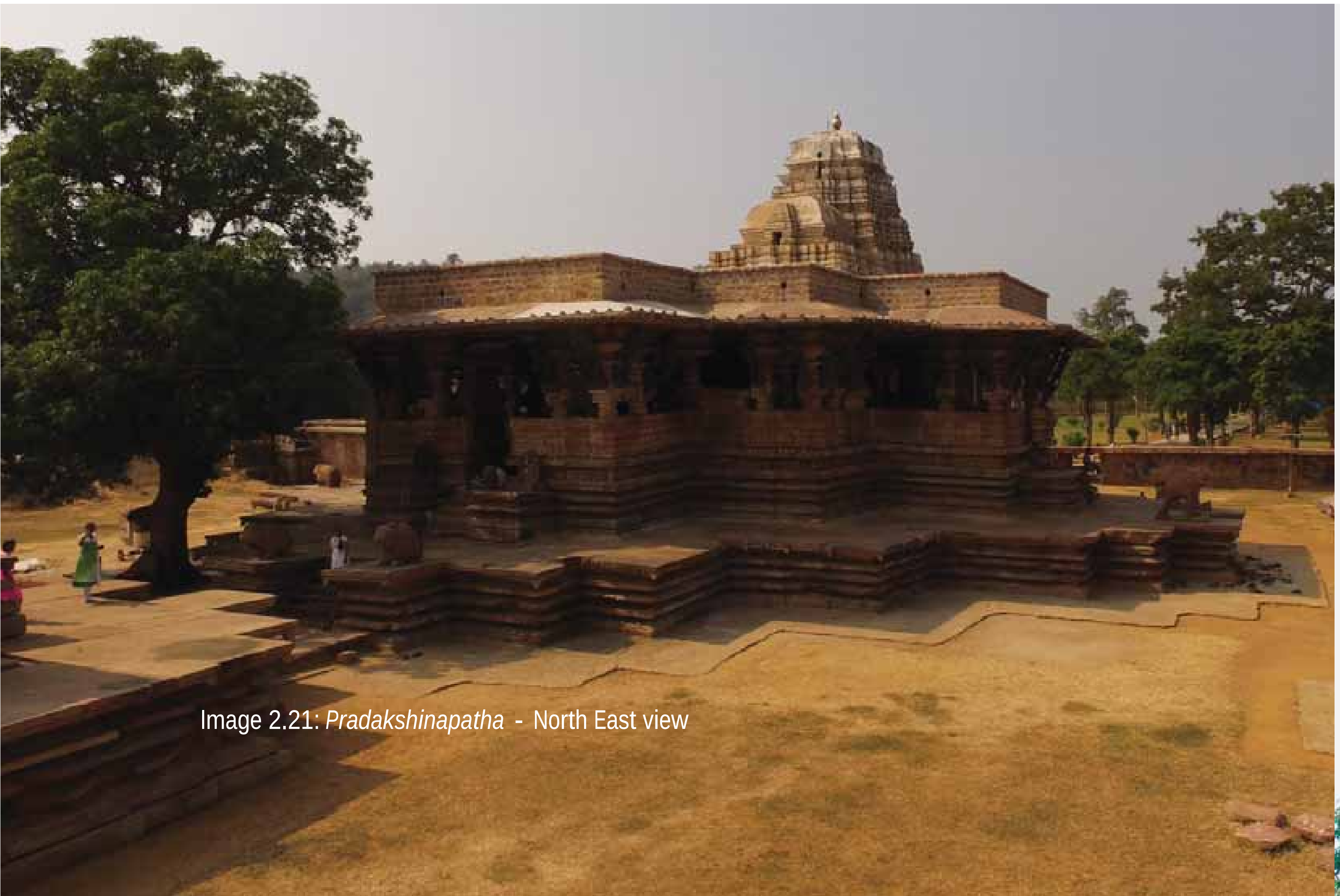


Image 2.21: *Pradakshinapatha* - North East view

7. Devakostas

Devakostas are three tiered aedicule created at the center of the exterior wall on three sides. They are the house of other Hindu deities to be worshipped by the devotees. The *Vedikas* of these niches are decorated with animal friezes. The ceilings are flat with flower designs underneath. *Devakostas* are a result of a sucessful reproduction of recreating multi storied buildings of that period.

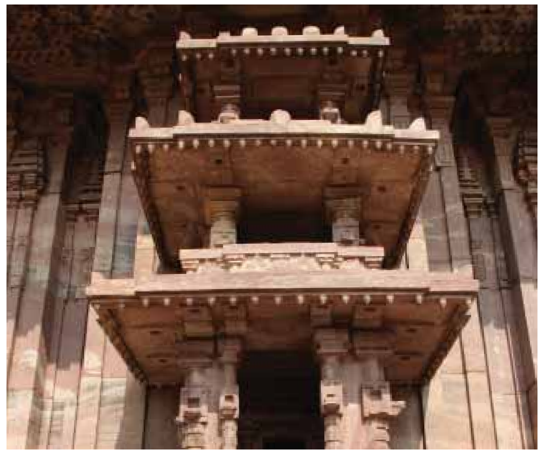


Image 2.22 : Three tiered *devakostas* with a *garbhagriha* and *antarala* along the path of circumambulation

8. Bracket figures

38 Bracket figures are installed along the exterior of the *Sabha Mandapa* to provide support to the overhanging *Kapota*. These dolerite brackets present on the East, North and South of the temple, stand out in the composition of the temple exterior. It is highly ornamented component consisting of *Gaja-Vyalas* and twelve *Madanikas*.

Bracket is an architectural element and its function was not only architectural but also terchnological as the cantiliver rock portico supported by bracket figures and *Gaja-Vyala* brackets. It is an oblong stone piece fixed between the pillar and roof beam to give additional strength and stability at the joint. The bracket figures of *Madanikas* are arranged in pairs under the eaves.

The devotees are provided shade from the sun from the overhanging *Kapota*. The *Kapota* of Rudreshwara Temple is unusually long. The under side of the *Kapota* is given much prominence as it attracts the sight of the pilgrims who circumambulate the temple on the *Pradakshinapatha*.

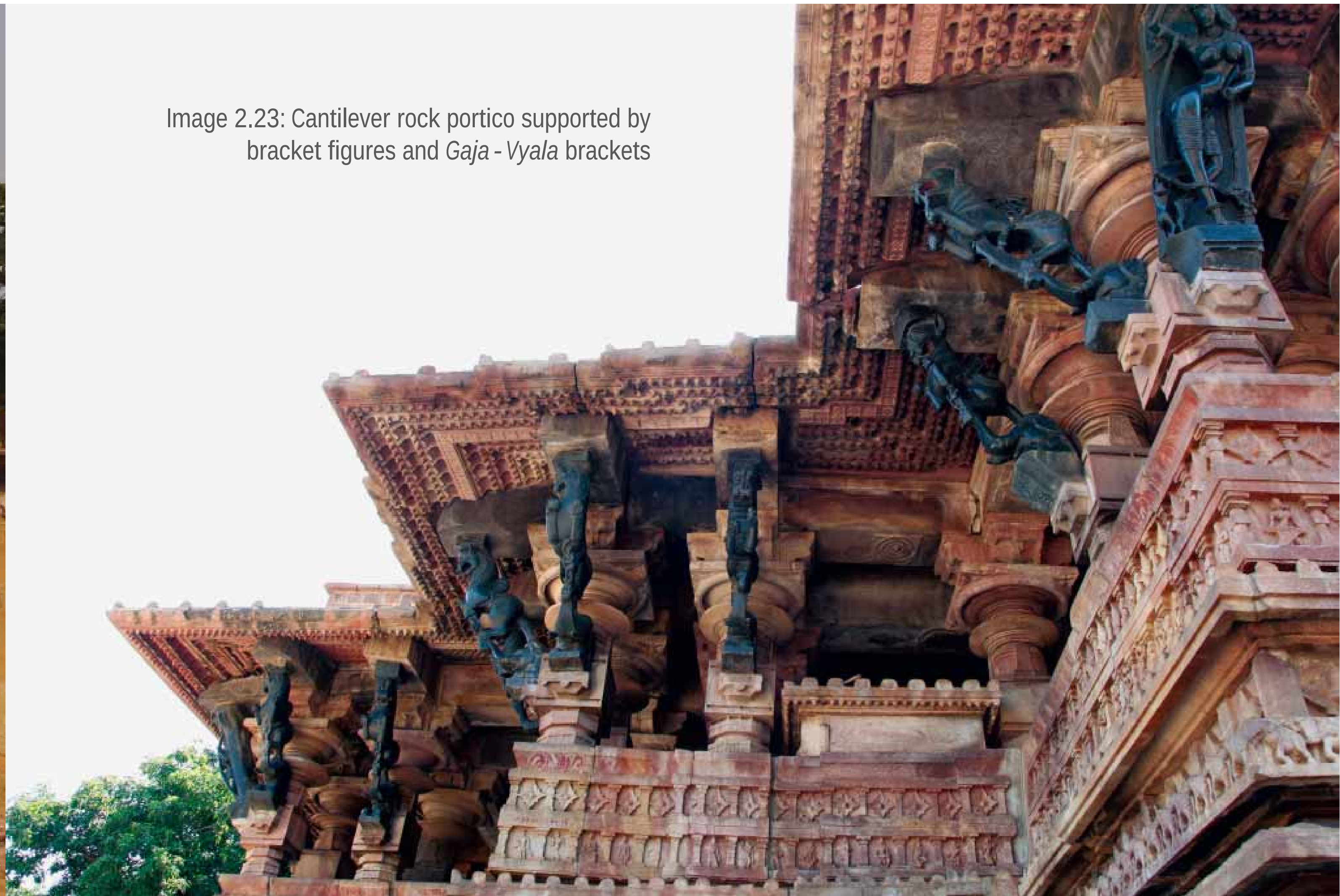


Image 2.23: Cantilever rock portico supported by bracket figures and *Gaja - Vyala* brackets

2.a.v. Sculptures of Rudreshwara Temple

The sculptural and form modification displayed in the Rudreshwara (Ramappa) Temple is a masterpiece of human creativity.

The temple has plenty of decorations, but at places distributed over the appropriate components of the temple. This thoughtful arrangement of ornamentation in the temple has made the sculptures exceptionally beautiful. The Kakatiya art was represented on the architectural members like pillared *Mandapas*, *Adhisthanas*, and *Padavargas*, *Prastharas*, beams, ceiling and *Vimana* portions which provide space to exhibit the architectural exuberance.

Kakatiya sculptors used the stone, which is available in Deccan trap that permits a metallic polish because of its volcanic nature. The hardness and fine texture of this stone was very convenient to carve out beautiful figures with striking contours and angularity. The very hardness of the stone has actually helped the artist to transform his inner vision into living reality. The portrayal of epic and *Puranic* themes on the temple walls form another means of communication with the illiterate masses [13].

The temple is one of the few temples which have strictly followed the guidelines of image making as prescribed in the *Shilpa-sastra*[14] . The *Shilpa-sastra* treatises give guidelines to the *sthapati* for the placement of the sculptures, its conception and execution.

All Kakatiya sculptures express of movement-a type of dynamism in form; either human or animal appears static or sedentary. Every form conveys active movement.The universal poise of all statuettes, the expression on their faces and the compositional excellence are the distinctive characters of all Kakatiya sculpture.

The Kakatiya sculptors took keen interest in depicting various divine figures along with their consorts on the architectural member of a temple in order to educate the mass visiting the temples at the time of periodical festivals.

With the influence of smartha philosophy and Brahmanical Hinduism, the great classics such as *Palakurti Somanatha's Basavapuranam*, *Panditaradya*, Nanne Choda's *Kumarasambhavam*, Marana's *Markandeyapuranam*, *Pothana's Mahabhagavatam*, Tikkana's *Mahabharatam*, *Ramayanam* of Gona Budha Reddy and Bhaskara were all written during the Kakatiyan period and post Kakatiyan period.

With the influence of Indian art this religious philosophy and the interesting stories from the sacred books were the main source of spiritual and devotional inspiration for the sculptors to produce the images of gods and goddesses and several of their exploits, which formed the pieces of Indian Art.

The sculptural art of the Kakatiyas reflects the contemporary socio-religious conditions. The figures of multiple gods and goddesses i.e. Siva, Vishnu, Brahma, Ganesa, Kartikeya and Bhairava, and the well-known forms of the goddesses like *Saptamatrikas*, *Mahisasuramardini*, Parvathi, Durga, Chamunda, etc., denote the flourishing state of Hinduism during this period. *Nritta Ratnavali* of Jayasenani, the original sanskrit script along with translation in English coupled with analysis in English was published by Kakatiya Heritage Trust (KHT) in 2013.

The sculptural panels, depicting themes from the *Ramayana*, the *Mahabharata* and the *Bhagavatapurana* such as abduction of Sita, Ravana shaking Kailasa, Churning of milk from the hevenly ocean, *Gaurikalyana*, *Tripurasura*, *Andakasura* and *Gajasura Samhara* etc., would suggest that the sculptors if the Kakatiyan art drew inspiration mainly from the sacred books of the Hindus and translated them in to the stone for the visual education of the different sections of the society.

> “*Architecture and sculpture are inextricably interwoven in the Indian art. The Indian artist brought newness into time worn members of the Indian temples through the play of light and shade.*”
>
> - M. Radhakrishna Sarma (1972)

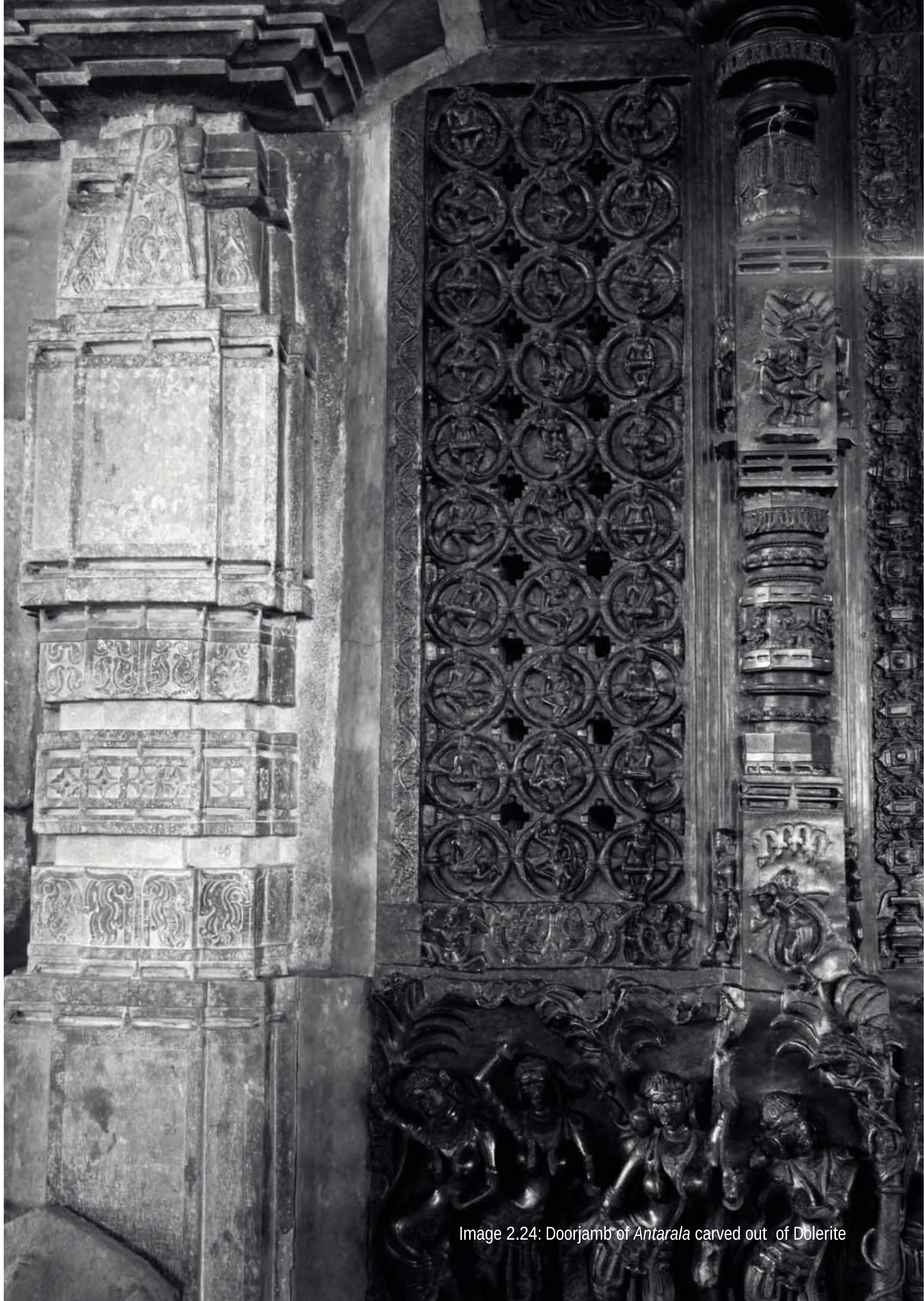


Image 2.24: Doorjamb of *Antarala* carved out of Dolerite

1. Upapitha

The *Upapitha* is majorly plain in nature. The *Padma* and *Adopadma* layer of the *Upapitha* are decorated with honeysuckle motifs in regular and inverted positions.

The chisels of the bands of the *Upapitha*, in itself is an ornamentation this architectural member.

2. Adhisthana

The Kakatiya Sculptor maintained a judicious balance between architecture and art. This can be seen in the *Adhisthana* of the Kakatiya Temples as the component is neither plain nor crowded with ornamental designs and figure sculpture [15].

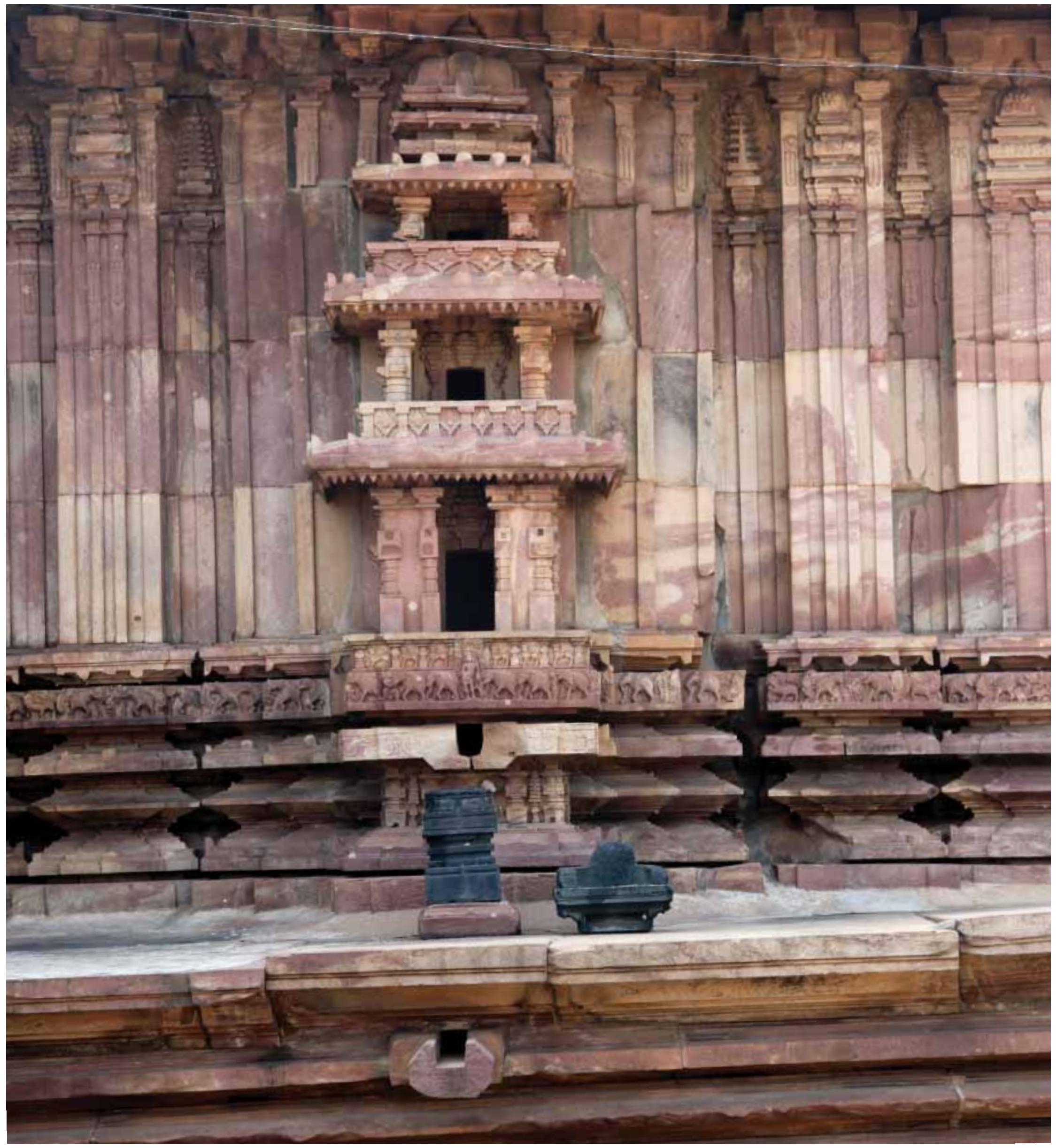


Image 2.25: Exterior composition of sculptures

3. Padavarga

The exterior walls of the *Garbagriha* are decorated outwardly with pilasters crowned with *Shikaras* of the *Nagara* and *Dravida* type disposed alternately and in the middle of the wall a miniature spire is carved a copy of the big on the top of the *Garbagriha*.

The sculptures on the *Padavarga* are different from exterior of the *Vedi-bandha* of the *Sabha Mandapa*.

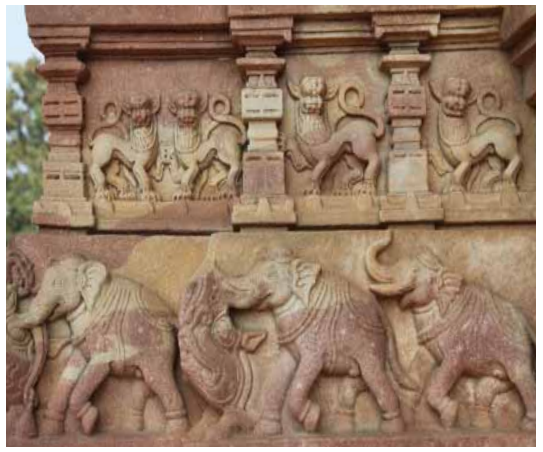


Image 2.26: Changing expressions of Elephants carved on the *vedika*

Vedi bandha

The decorations on the *Vedi bandha* are done in a series of 4 horizontal bands consisting of floral designs, mythological scenes, male and female dancers accompanied by musicians.

From bottom to top the following has the pattern of carving on the four sections. Rows of elephants; *Vajra-bandha* decorations, the section is divided into a number of compartments with dancers, deities and musicians carved in them. Important among the sculptures which are repeated are *Munis*, Ganesha, Bhairava, Siva, Devi and Narsimha carved in each compartment. The last band is again decorated with *Vajra-bandha*[16].

Image 2.27: Pilasters of *Vimana* on the *Padavarga*

Garbhagriha outer wall

The exterior walls of the garbagriha are decorated outwardly with pilasters crowned with *Shikaras* of the Nagara and Dravida type disposed alternately and in the middle of the wall a miniature spire is carved a copy of the big on the top of the garbagriha.

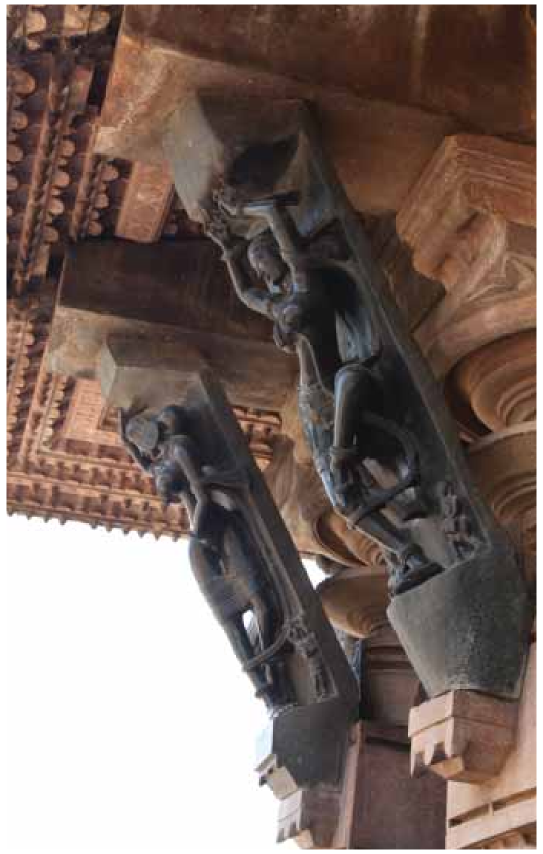


Image 2.28: Three dimensional sculptures of the *Madanikas* arranged in pairs

4. Bracket figures

The bracket figures of the Rudreshwara (Ramappa) Temple are the highlight of the sculptures of the temple. There are two types of figures carved on the bracket figures, one is the mythical *Vyalas* and others are the famous *Madanikas* of Palampet.

The bracket figures represent almost a conventional carving characterized by stiffness and almost frozen rigidity. These acclaimed by many as great works of art, have a stylized movement and cubistic carving. The angular protuberances are dominating while the limbs are slim and pip lake at time border on emancipated look. The facial physiognomy has been standardized as noted above, the mask like rigid and rather frozen face is grave in expression.

Madanikas

The *Madanikas* are beautiful maidens showing roles of a maiden like that of a *Nagini*, *Manini*, *Rati*, *Mardala*, *Dalamalika*, Huntress and Dancer. These figures are the most described and acknowledged sculptures among the Kakatiyan sculptures.The fluid rendering of the volume and the serpentive curve of the body endow these figures with an animation, dynamic as well as compact. All are curved in high relief, deeply under cut and most proportionately modeled and ornamented. Only the essential and the most indispensable elements are being retained to convey the full import of the figures depicted.

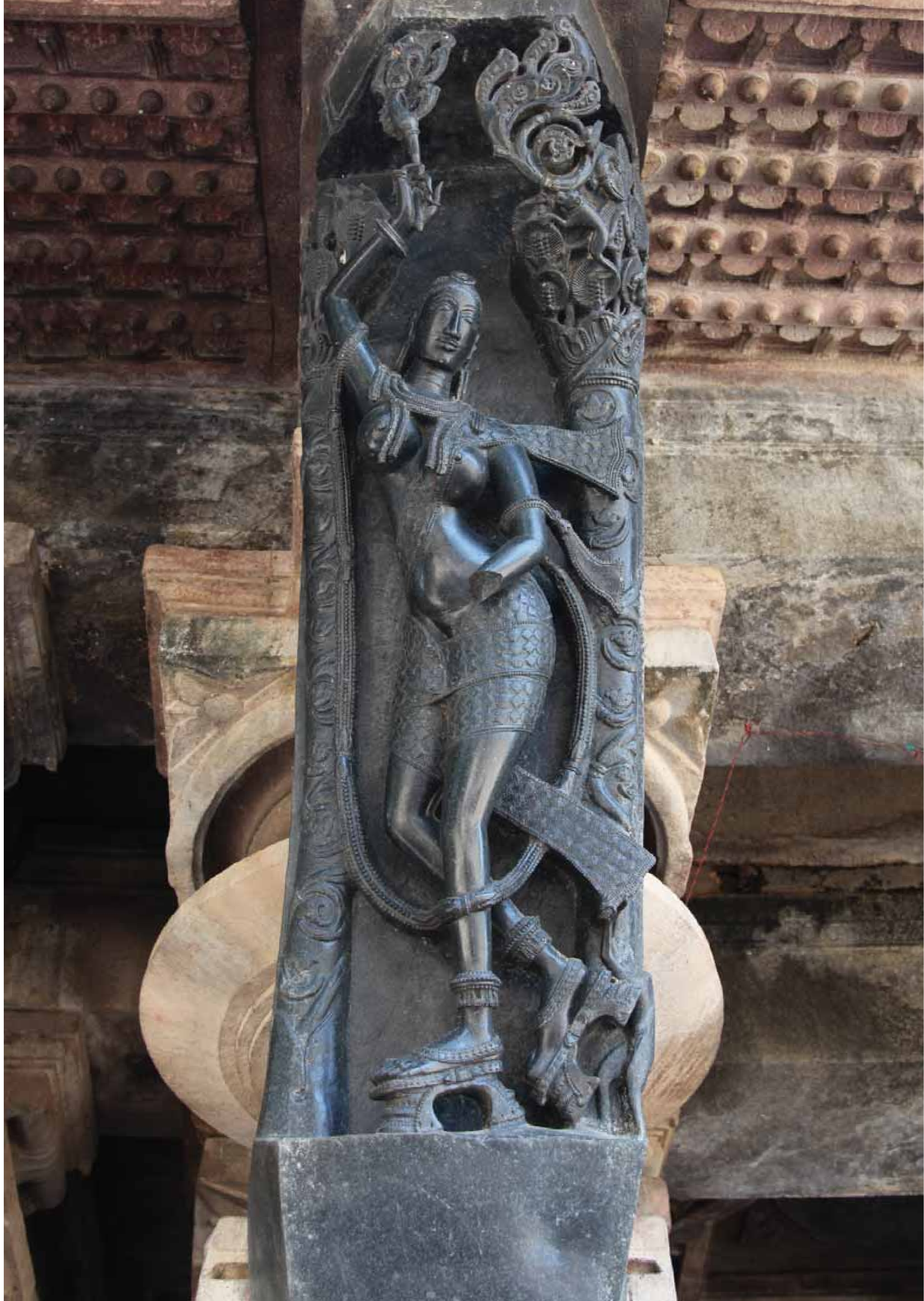
The maidens in the sculptures depict the powerful emotions of human heart, its joy and sorrows, ecstasy of enjoyment and experience and passionate outbursts and tender moods are appropriately expressed by the Kakatiyan sculptors through these *Madanika* bracket figures[17].

> “*‘Greece may rightly be proud of the sober dignity of the caryatids of the Erectheum, but as art must represent human thought and life in all its phases, the figure brackets at Palampeta occupy a distinct position among the sculptures of their kind, showing elegance combined with a joyful mood.’* .”
>
> - Gulam Yazdani

Dalamaika

Dalamalika is the women garlanding herself with a branch. She is adorned with ornaments like *padasara*, *kadiya* and especially the *padukas*. The garments of the *Dalamalika* are designed with circular and diamond designs are quite beautiful. She is shown in a graceful dancing pose[18].

Image 2.29: *Nartaki* in high heels



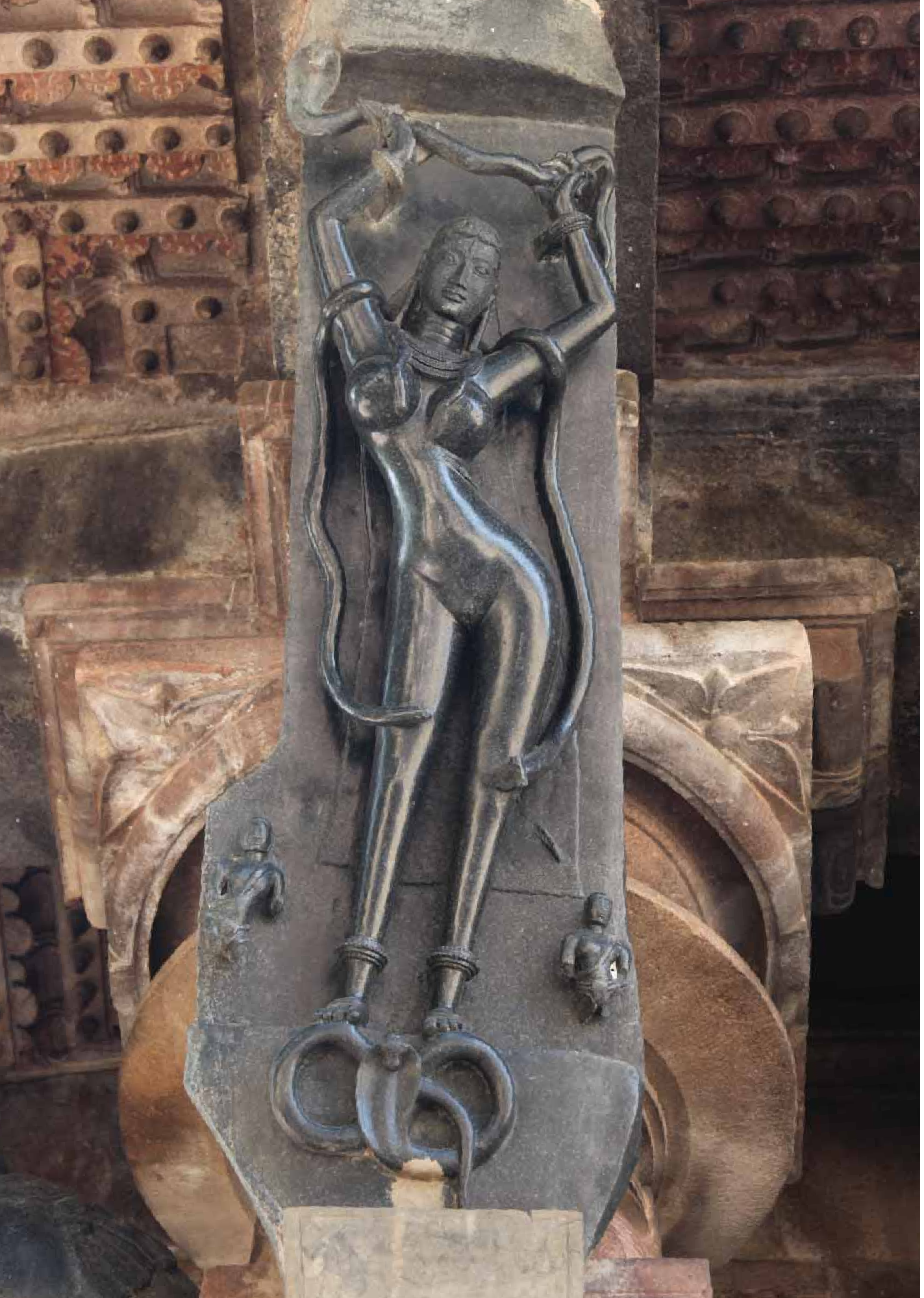


Image 2.30: *Nagini*

Nagini with two snakes

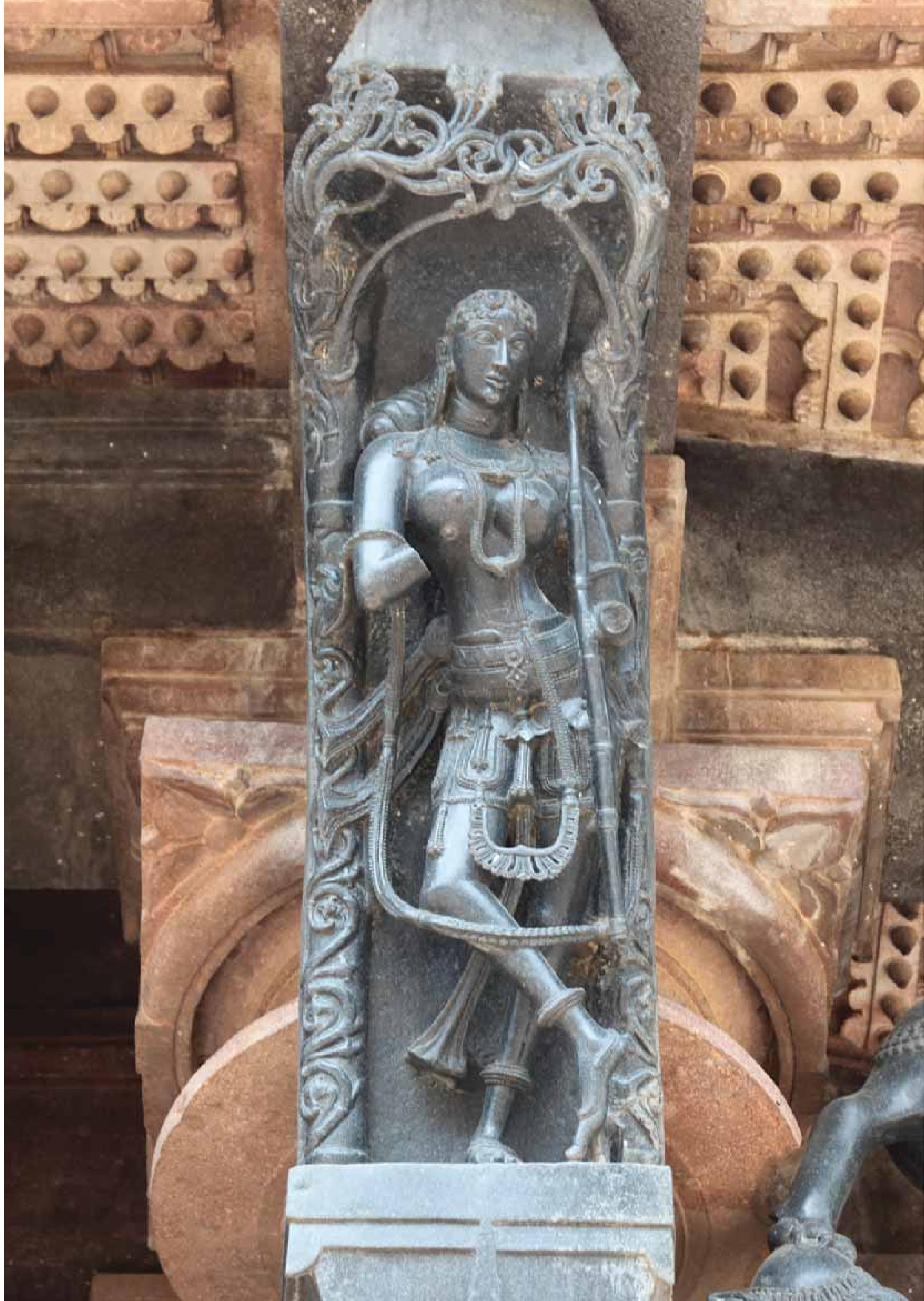
A figure of *Nagini* carrying a snake in her lifted hands, another snake hanging like a garland over her shoulders. This is the most important *Madanika* among the others all it portrays all the beauty of womanhood moulded into this wonderful form.

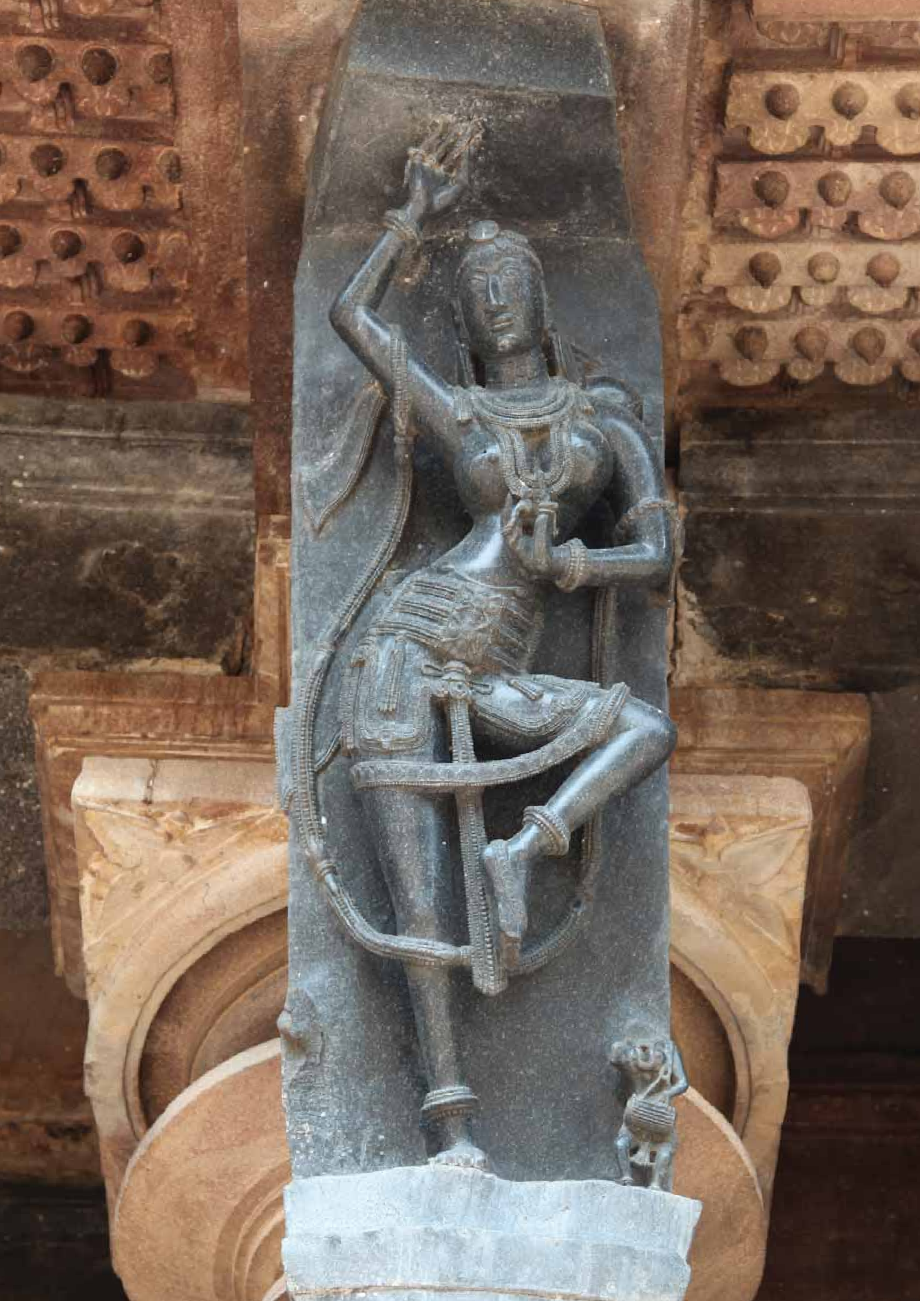
She is portrayed as a tantric figure. The coiled serpent at the Nagini's feet is a symbol for kundalini force. When this serpent uncoils and ascends to reach the *sahasraram* the head, *siddhi*, and spiritual enlightenment is achieved. It conveys, *Nagini* is a *yogini*, who has conquered the serpent power, symbolized by her holding the serpent in her arms. The tranquil expression in the face conveys, she has attained siddhi, and such individuals do not have any consciousness of their physical bodies, naked ness conveys this[19].

The idea of the exuberance of youth with unfettered emotion is illustrated by this *Nagini* sculpture.

Rati
Godess *Rati* shown holding sugar cane symbolizes love, tenderness and the advent of spring. Her legs are in *vyatyasthapada mudra*. Her garland is the most appreciated element.

Image 2.31: *Rati* ▶





Gayani

A singer in *tribhanga* pose with two miniature drummers on either sides is depicted here. The *Madanika* is posing with her entire weight on the right leg while the left one is raised and bent at the knee. Her right arm is lifted up above her head and palm is in *hamsa* (swan) *mudra*. Her supple waist and delicate neck are gracefully bent to the proper right. Her half opened mouth shows her singing. The graceful folds on the stomach the imaging expression in her fully opened eyes are very attractive.

◀ Image 2.32: *Gayani* in *tribhanga* pose

Mardala

Madanika with a *Mridanga* placed in the breadth of the middle line of her chest is carved very divinely. Her chest is on the middle line. She is in *dwibhanga* pose flanked by musicians.

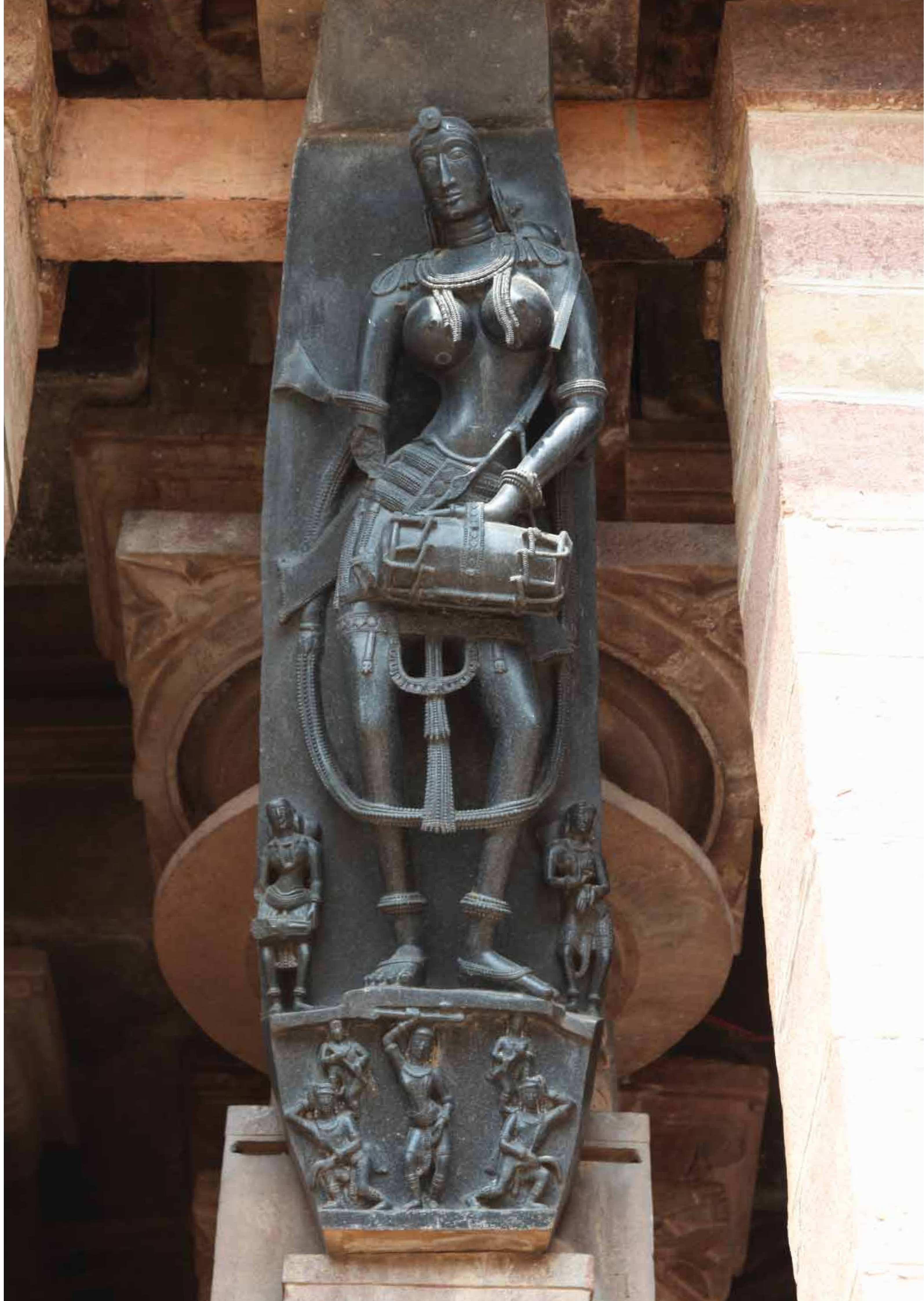


Image 2.33: Mardala

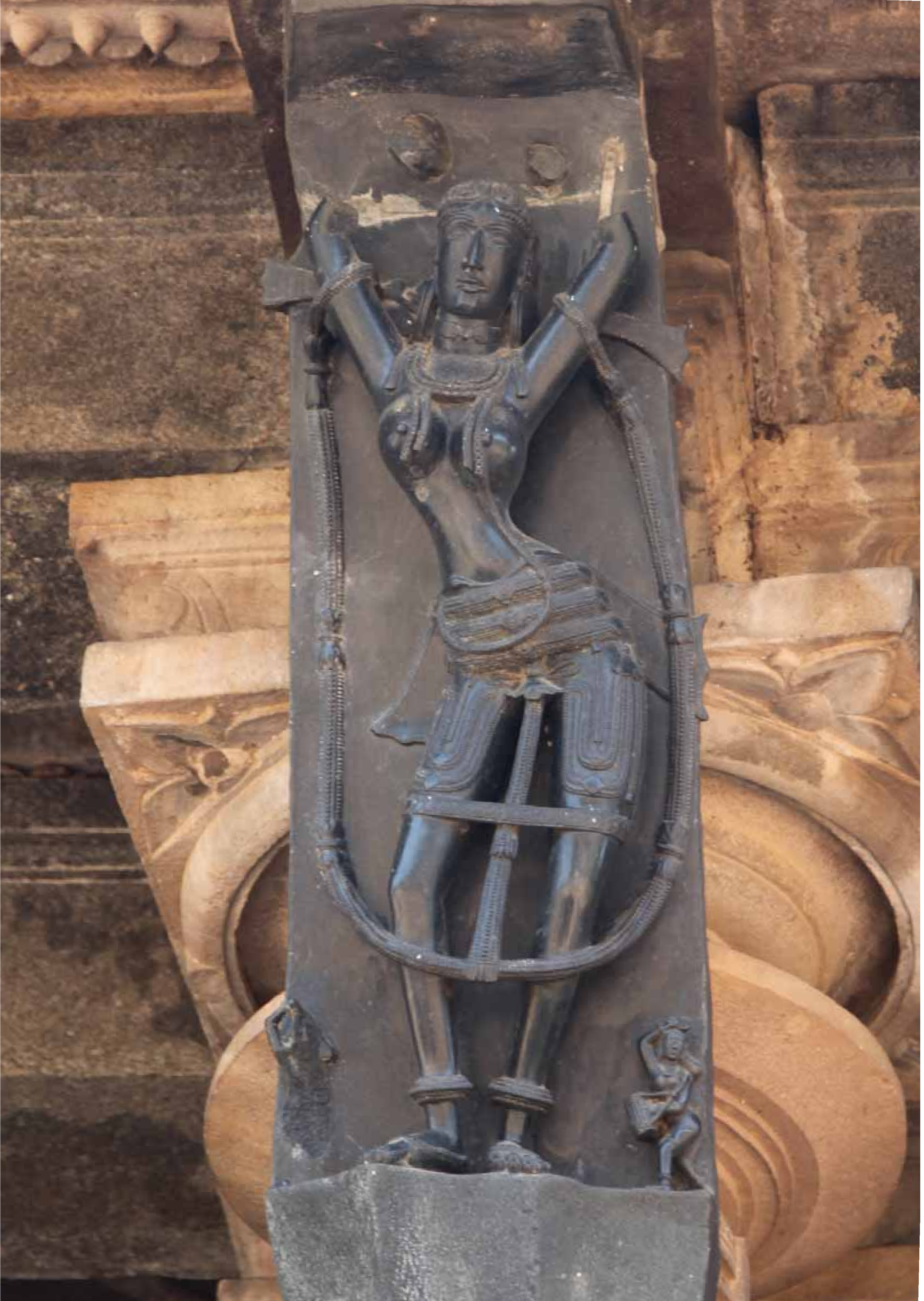


Image 2.34: *Abhinaya Nartaki*

Abhinaya Nartaki

Nartaki figure is turning her body and looking towards the right side. Nartaki has her (mutilated) arms raised towards sky. She doesn't have an *Uttariya*. . She is in *Tribhanga* Pose.

Nartaki

Nartaki standing firmly on her left leg with the right leg over her left thigh. her left hand is close to her breasts and right hand firmly lifted above her head. She is being accompanied by a pair of drummers.

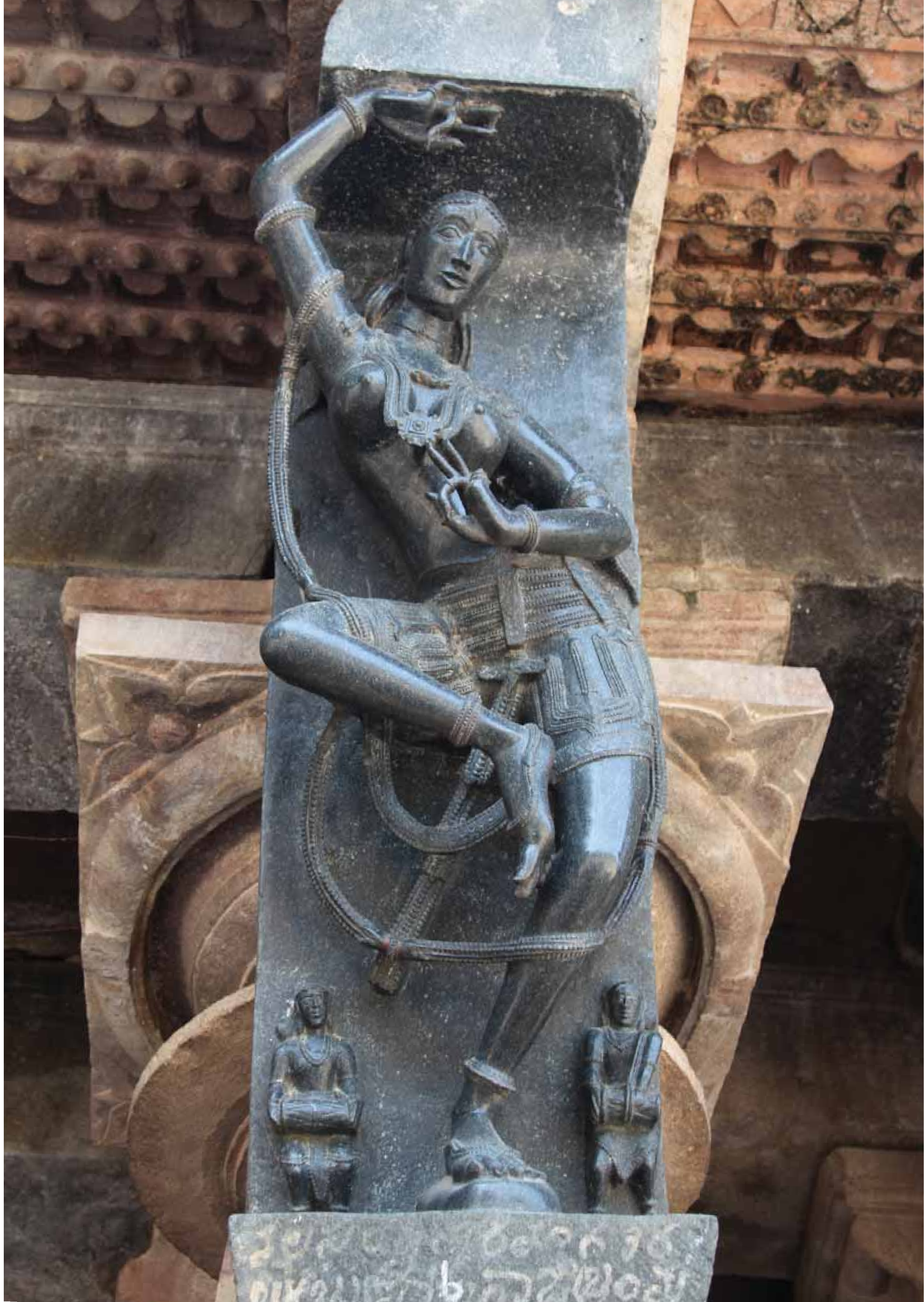


Image 2.35: *Nartaki*

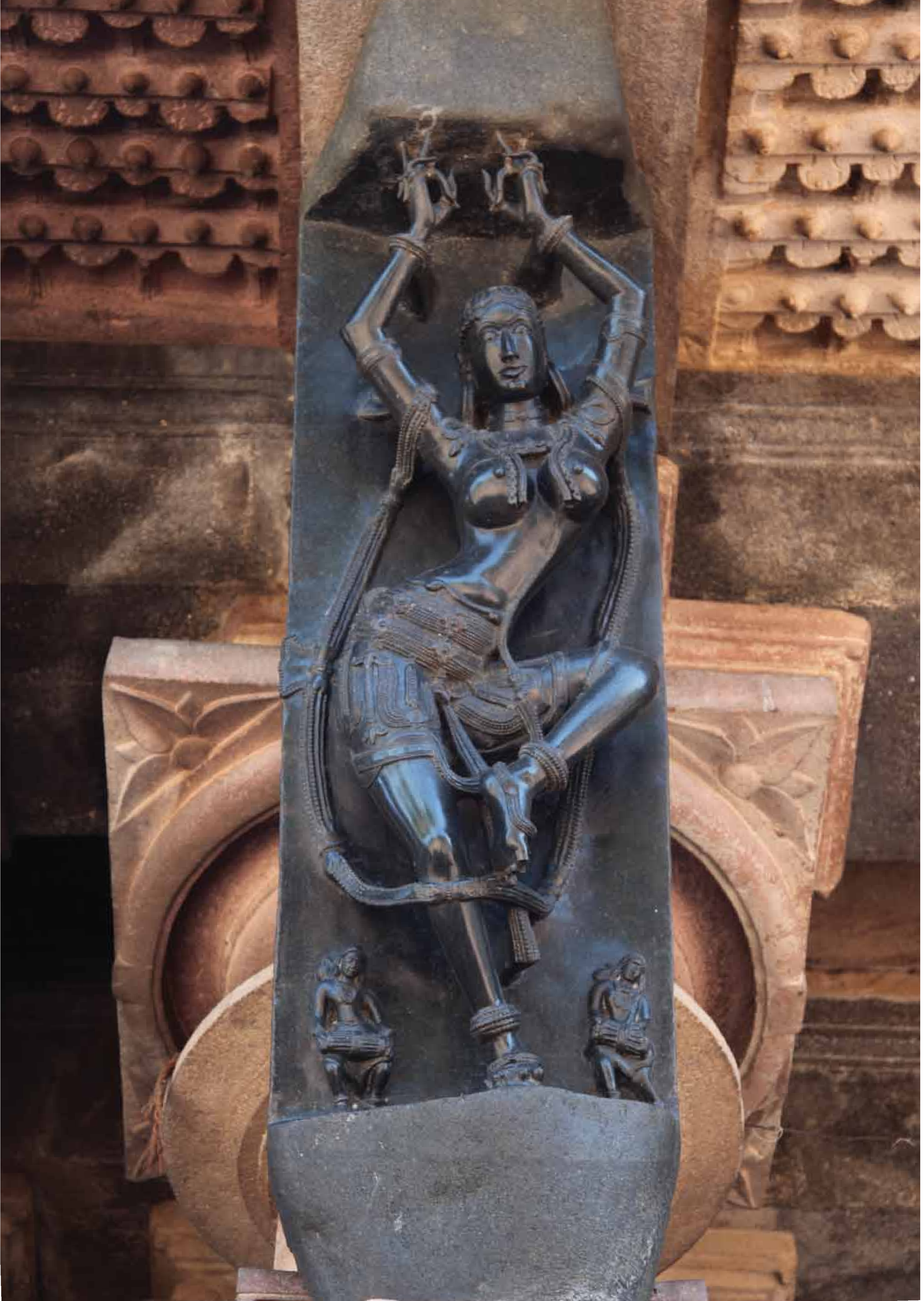


Image 2.36: *Nartaki* in *tribhanga* pose

Nartaki

Nartaki flanked by two musicians. Her hands are raised above her hand. She is in *tribhanga* pose.

Abhinaya Nartaki

Maiden dancer standing and exhibiting her *Abhinaya* is sculpted on this bracket. Her hands are raised above her head, slender waist bent to right, with her eyes fully opened looking slightly upwards.

She is being accompanied by miniature drummers playing the drums in rhythmic movement on her sides.

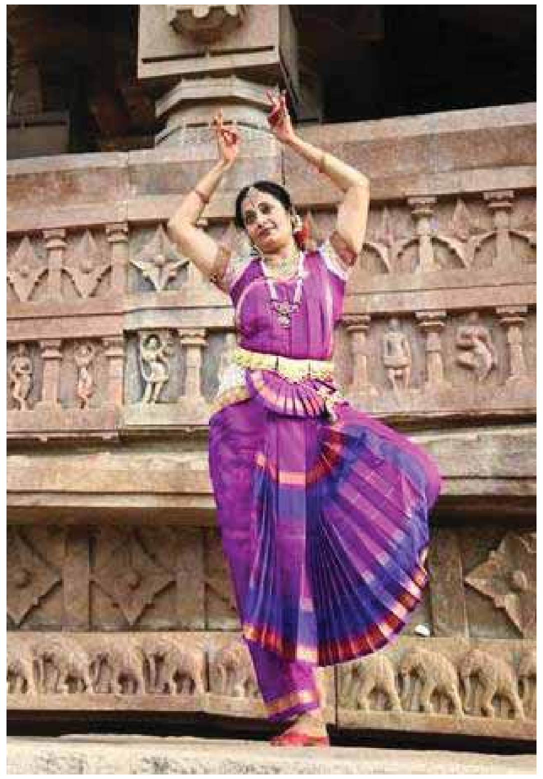
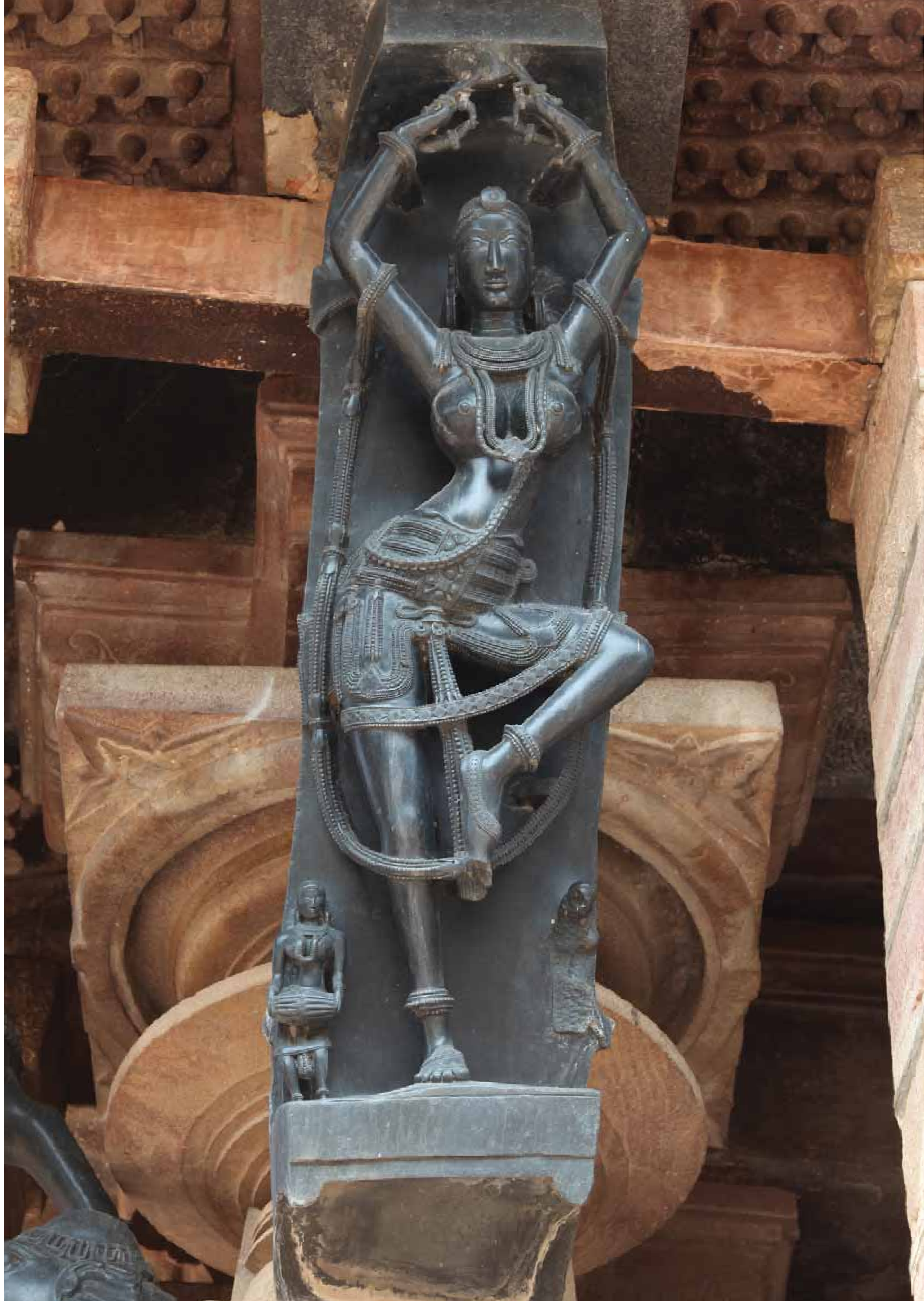
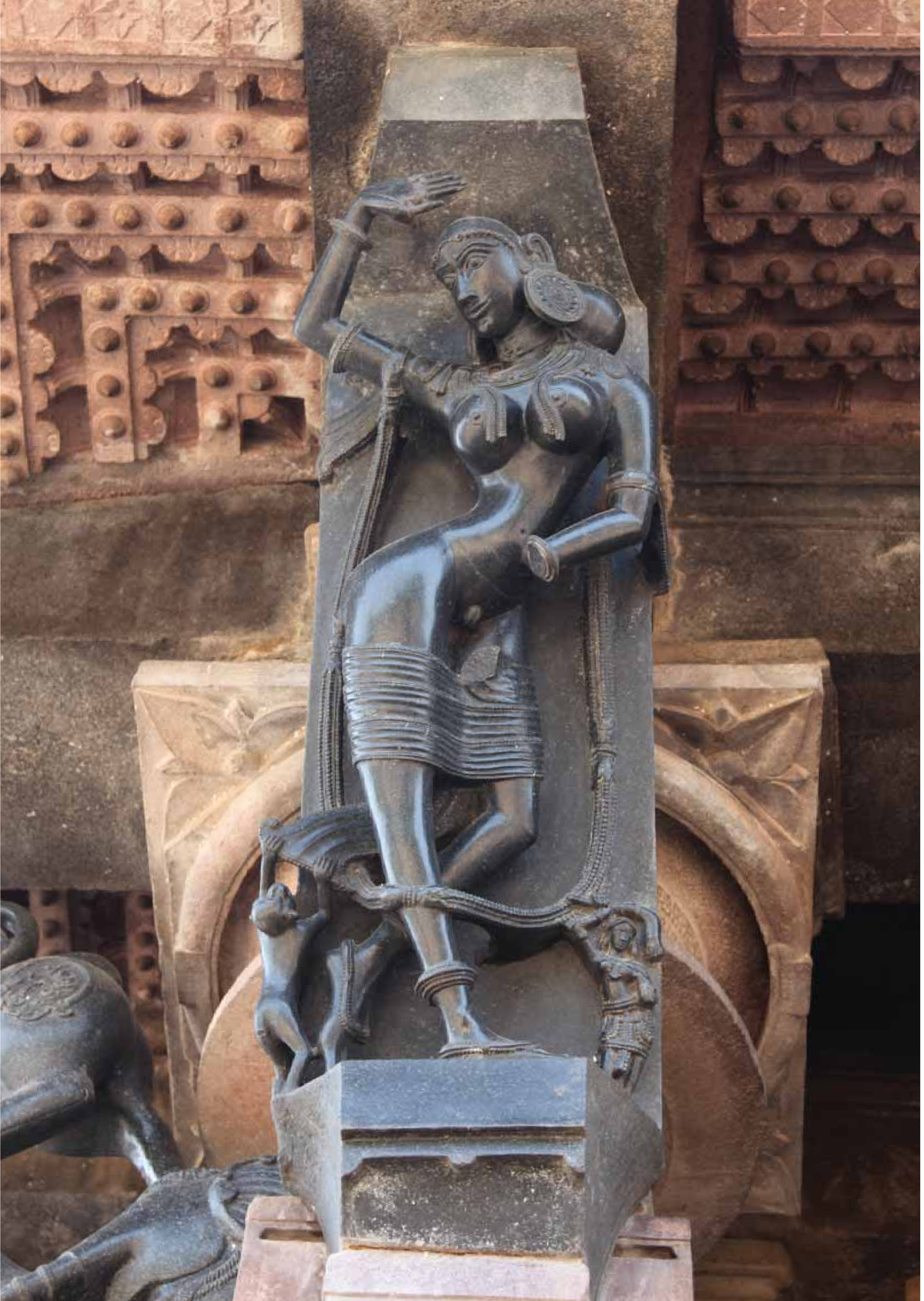


Image 2.38: Dancer imitating *Abhinaya Nartaki*

Image 2.37: *Abhinaya Nartaki* ▶





Jayassi Nartaki

This *Madanika* is dancing in a pose as described by Jaya senapati in this book *Nritta Ratnavali*[20], hence the pose in which she is dancing is named as Jayassi Pose. Her head is bent gracefully in nata and her waist is in chinnapose and her right hand is gracefully raised above her head with the palm in *tripataka* pose. Her right hip is curved and the right leg is firmly placed on the ground. Her left hand is in *svastika*, legs are in *vyatyastapada* pose. The left toes are pointing to the ground. The left hand is curved over and the palm is at the waist in *ardha-chandra* (crescent moon). The ear rings are circular adding grace to the bent neck and the slight tilt of her head.

There are other small dancing figurines carved relatively in fine dimension moving round the main dancer. The coiffure is stylized.

◀ Image 2.39: *Jayassi Nartaki*

Huntress Madanika

The Huntress Madanika is a unique bracket figure of Rudreshwara (Ramappa) Temple. Her legs are in *vyatyastha* pada and she is in *tribhanga* pose. Ahe holds a bow in left hand and an arrow in her right hand. Her costumes are adorned with the bands of flowers.

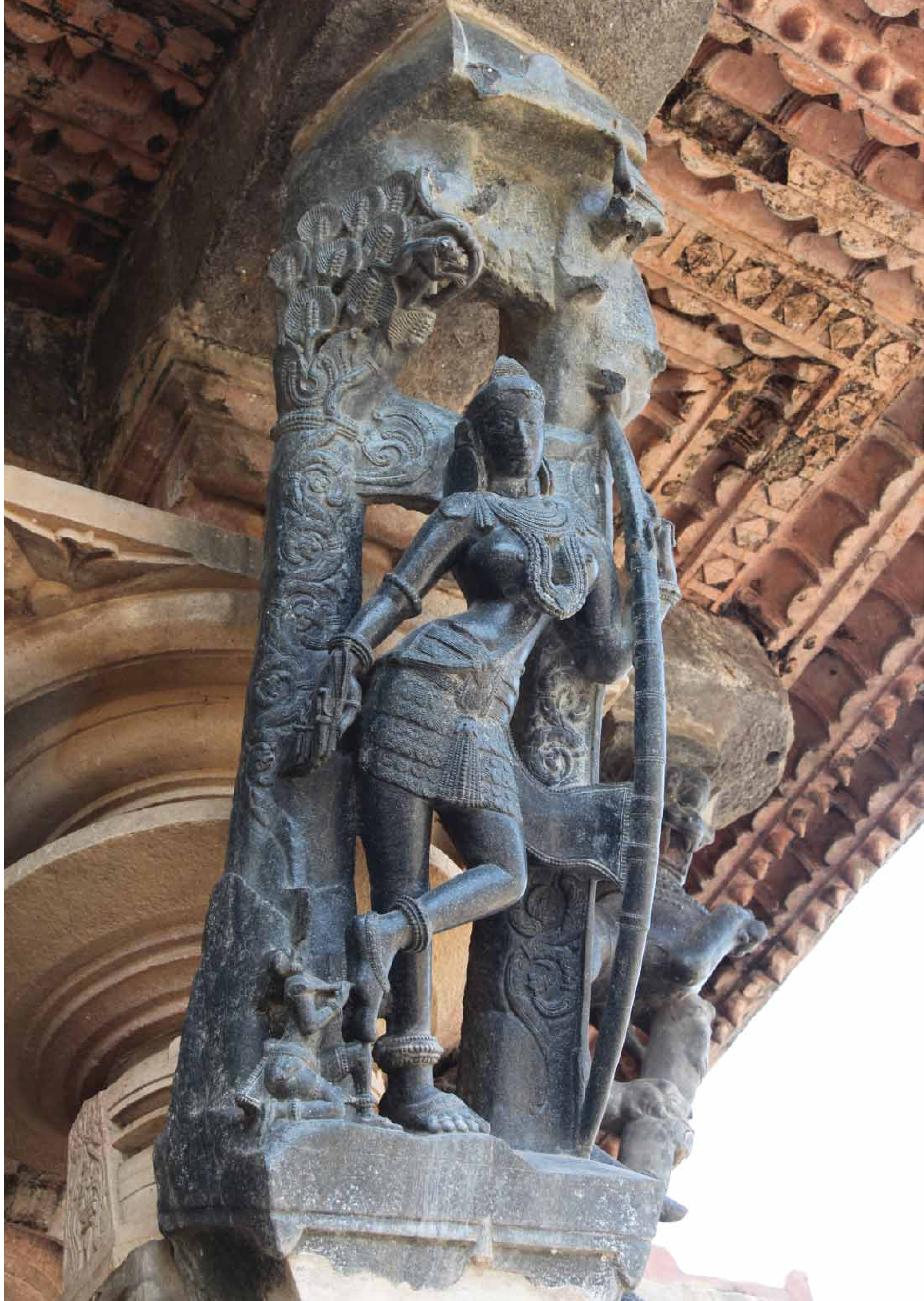
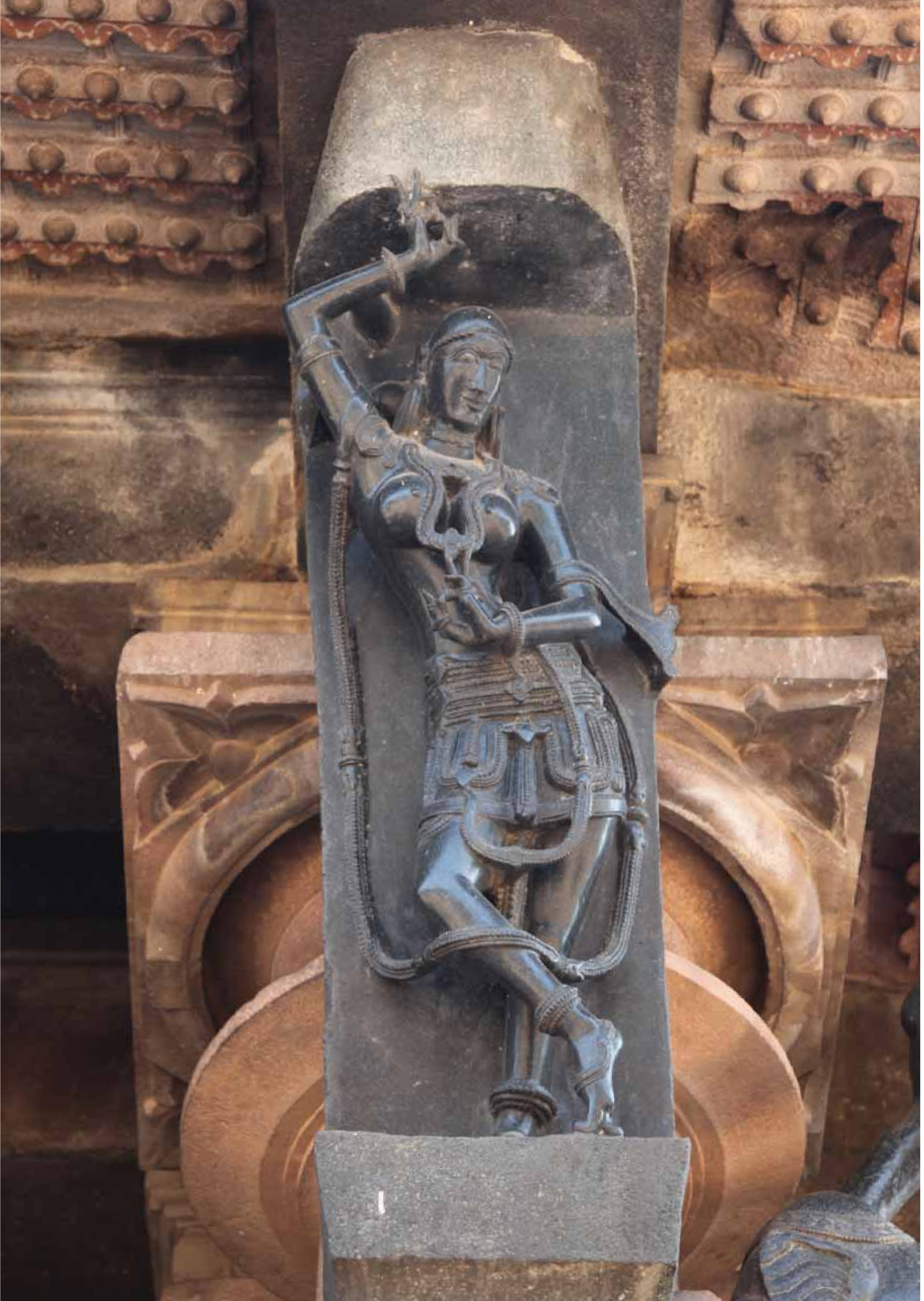


Image 2.40: Huntress *Madanika*



Gayani Nartaki

Nartaki exhibiting the *vyatyasthapada* pose. She is poising her weight on her left leg while right one is raised and bent at the knee point. Her proper right hand is raised above the head with palm turned down wards. Her mouth is half open and eyes wide-open as if she is singing while giving her dance performance.

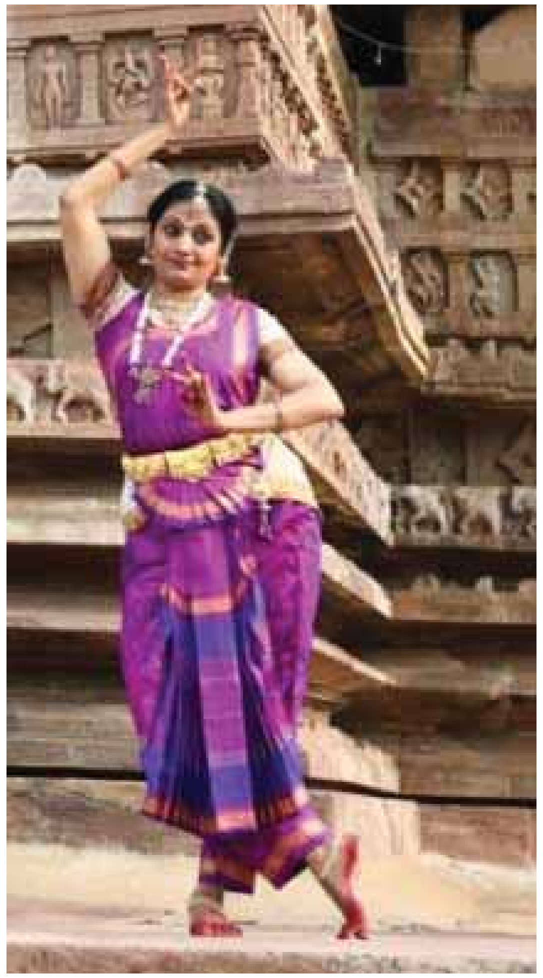


Image 2.41: Dancer in *vyatyasthapada* pose

◀ Image 2.40: *Nartaki* in *vyatyasthapada* pose

Gaja-vyala Brackets

Gaja-vyalas are mythical monsters that are exquisitely carved and arranged in pairs in the form of brackets under the massive eaves of the *sabhamadapa*.

They are shown standing firmly planting their back legs on the head and raised trunk of an elephant. Their protruding tongue and tusks, reptile like agility, short cunning ears, and bulging bellicose eyes and above all the fierce and terrifying expression on their faces are splendidly delineated by the master craftsmen of the period[21].

The way the *Gaja* and the *Vyala* are placed springing out from the sockets of the *Madhyabhaga* of the pillars, it feels as if these creatures are assigned to carry the load of the eves, hence protecting the temple.

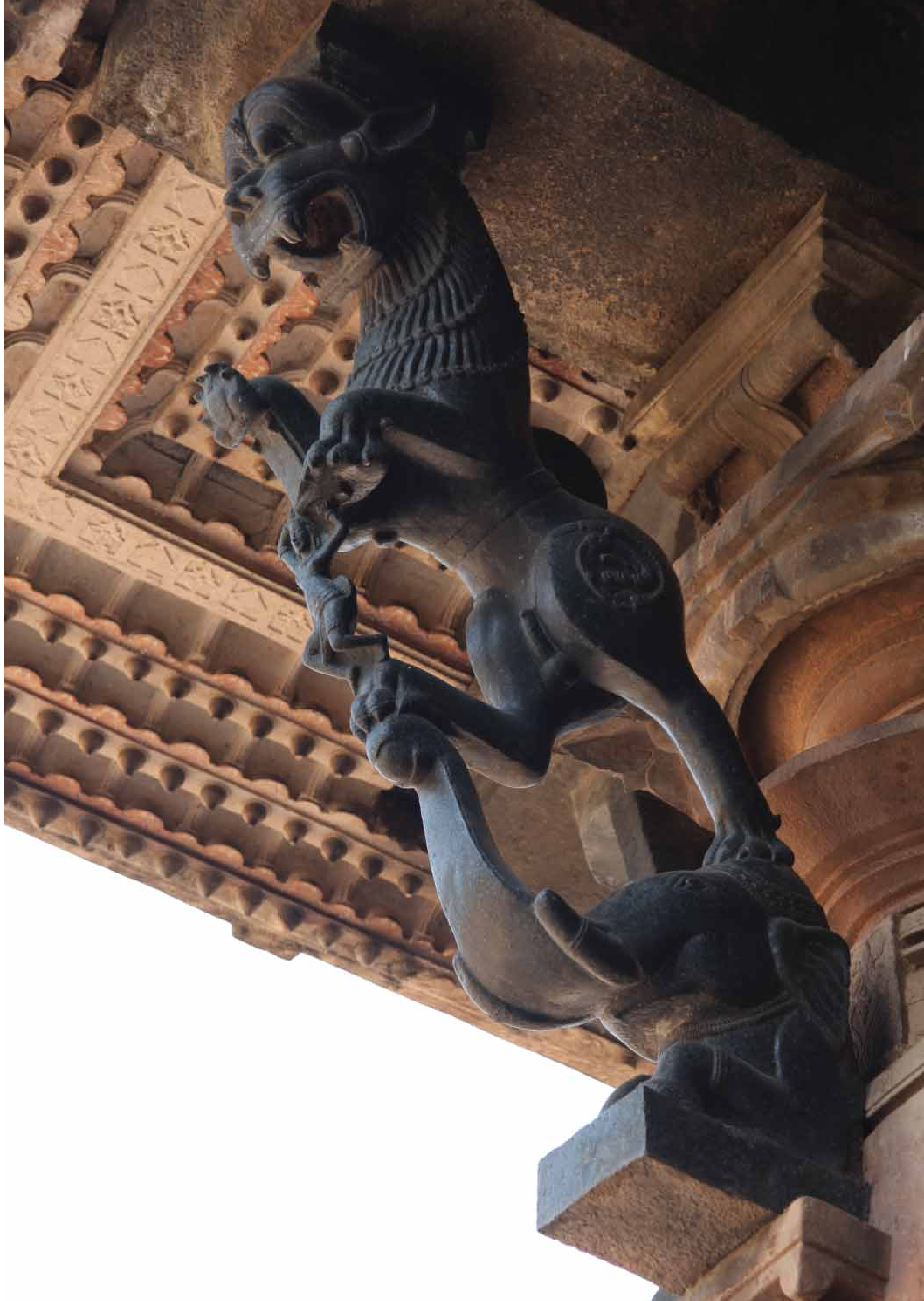


Image 2.42: *Gaja* and *vyala* are very precisely connected to form the brackets ▶

5. Prastara

The *Kapotas* and *Vyalas* which form a part of the *prastara* are decorated with *Jharavari*.

Kapota

The intricate carving of the bottom portion of the *Kapota* of Rudreshwara Temple is the best example of Kakatiyan *Kapotas*. Much prominence was given in decorating the underside of the *Kapota* as it attracts the sight of the pilgrims who circumambulate the temple on the *Pradakshinapatha*. It is designed like a wooden eve of secular structure having horizontal bands and semi- circular grooves. It is decorated with graceful drop designs where as its underside is decked with a series of lotus pendents[22]. Since the *Kapota* is slanting, the horizontal bands have graduated projections and recesses with each band connected with curved bands.

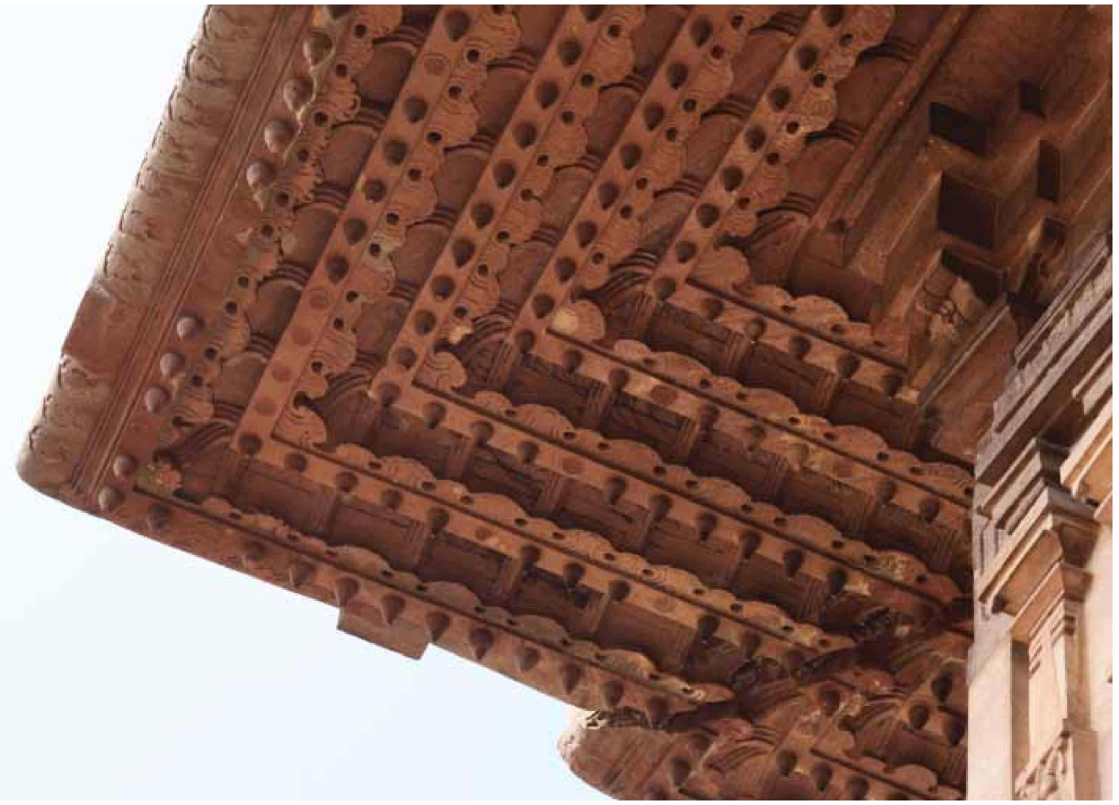


Image 2.43: Bands on *Kapota* exactly offset the exterior wall

Characterizing the style of the main *Shikara*, Fergusson added

> “ *a compromise between the styles of North and South India* ”

6. Vimana

The *Vimana* being a vertical component adorned with layers of horizontal bands in the form of *mahanasikas* followed by the *bhumis* of the *Vimana* and topped by the *Shikara* and *Kalasa*.

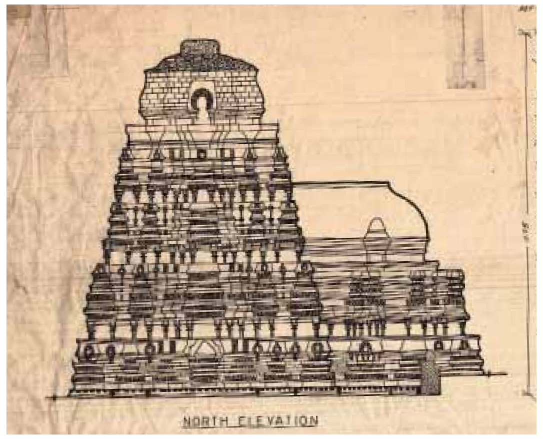


Figure 2.4: Diminishing layers of the vimana.

On moving from bottom to top the size of the layers reduces and the sculptures are repeated with diminishing sizes. The tiers of pilasters rising vertically give the structure the vertical theme, while the railings and the bold cornices with horizontal courses give the horizontal theme.

Each *tala* is adorned with a row of miniature Dravidian vimana models standing on slender *Sthambikas*. The central projected member is ornated with *sala* and *kosta* crowned by a *shikara sila*. Each *tala* is surmounted by a *griva* which is adorned with row of pillars.

The *Shikara* is decorated with nasis at the central portions. The sculptures of *vimana* are carved on the porous bricks and plastered.

Mahanasika

The *mahanasika* resembles a nose. The nasi is a major ornamentation to the *vimana*.

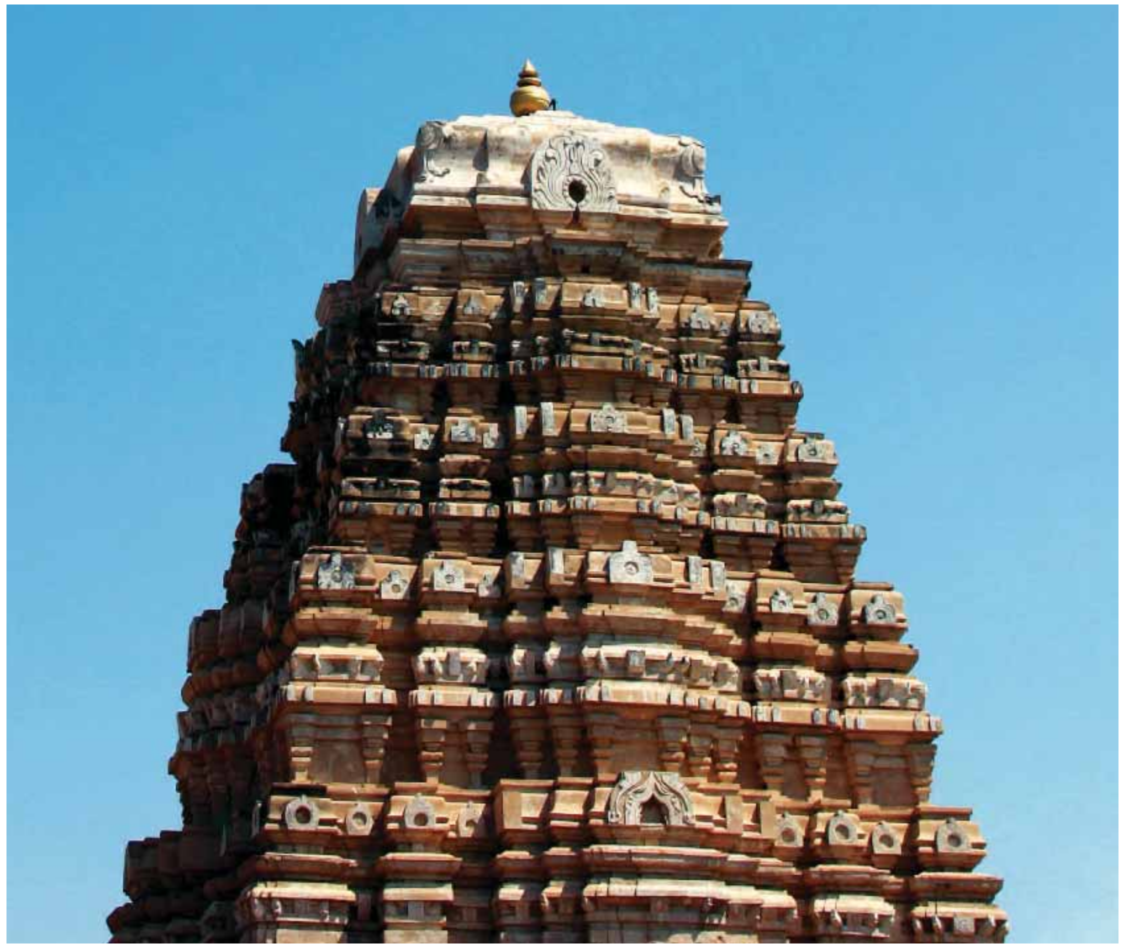


Image 2.44: *Mahanasika* on the *Vimana* of Rudreshwara Temple

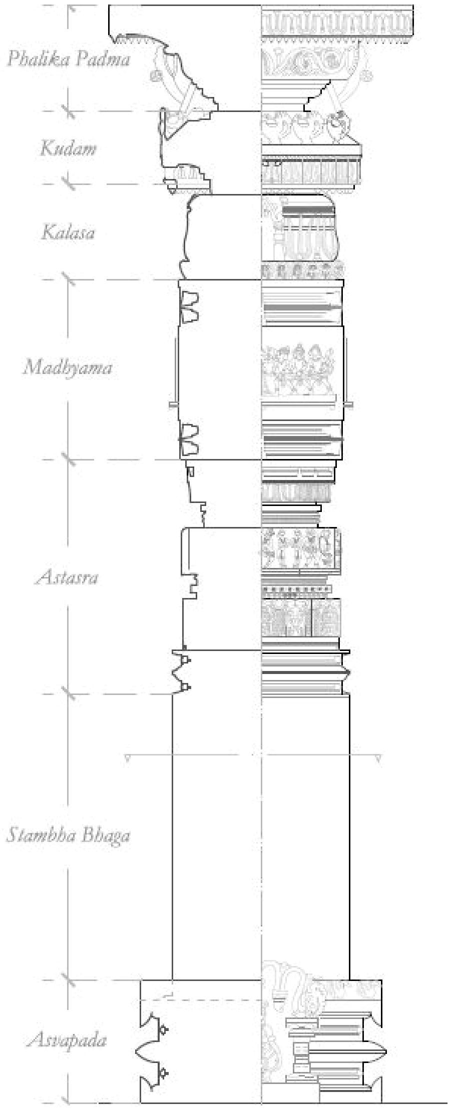


Figure 2.5: Composition of a Kakatiya pillar

7. Sthamba

The Kakatiyan pillars possess a fine lustrous polish and exhibit the greatest possible exuberance of varied design and motifs, boldly designed and finely executed to the minutest detail. They are decorated with *Puranic* stories, female figures, chains and beads.

The pillars of the central *mandapa* are cubical at bottom, octagonal and circular bands covered with processions of musicians and dancers in the middle with a square section above on the face which are depicted scenes from the *Bhagavatha* and a tapering top surmounted with a *pitha* and corbel. The pitha is beautifully covered with flowing pearl tassels while the corbels are plain with chamfered ends [24].

The beautiful sculpture depicted on the pillars like *Gopikavastrapaharana*, three dancers with four legs, musicians, the *Kollattam* troupe, *amritamadana* etc., are eye catching.

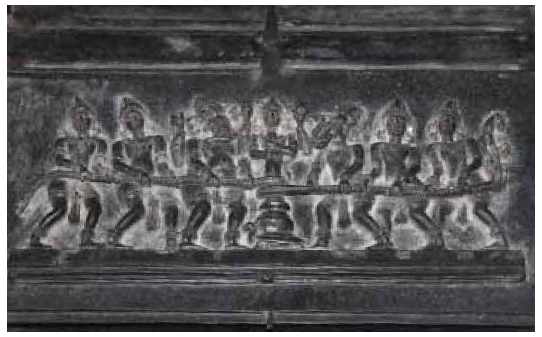


Image 2.45: Churning of milk ocean depicted on the *Madhyabhaga* of the *Natya Mandapa sthamba*

> *“The ornamentation of the pillars of the Mandapa, architrave of the antharala and the ceiling of the Ranga Mandapa are rich, subtle and fine like exquisite filigree work on gold or silve indeed .[23]”*
>
> - PV Narasimha Rao, Then Prime Minister of India

Alamba, *jharavari* or ornamentation of hanging drops, *hamsa*, dancers, musicians and *gundika* decorations in tiers adds uniformity and balance to the pillar.

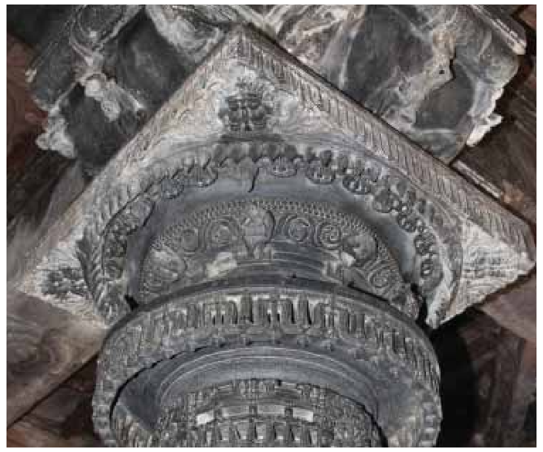


Image 2.46: Rows of lotus bands, *hamsas* and beads on the capital of the pillar

The chain motifs are rendered in metallic fashion in the pillars of the *Natya Mandapa* are so elegant and tastefully decorated showing excellence in craftsmanship.

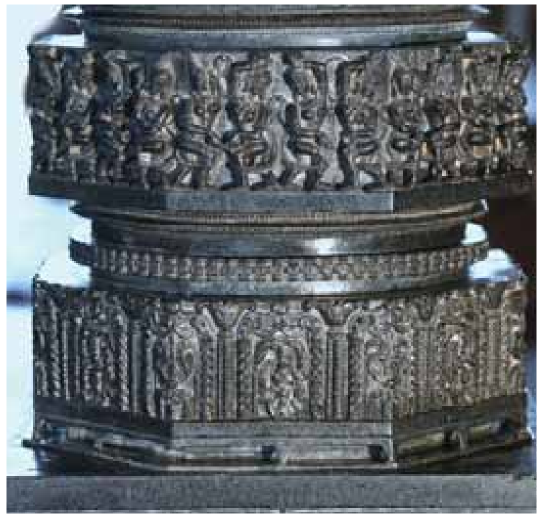


Image 2.47: Bands of chains of varying types in the metallic finish

The sculptures on the pillars and pilasters made of dolerite are carved in a three dimensional form. They are so precise that a needle can be passed through these minute details of the sculptures.

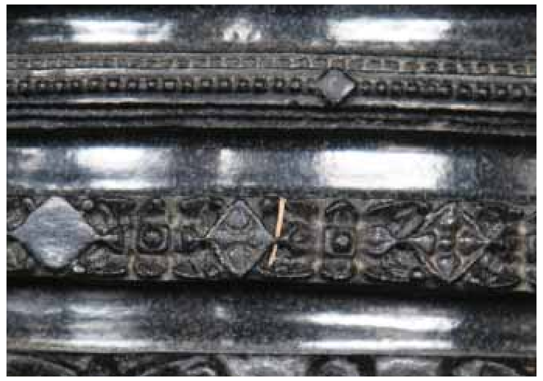


Image 2.48: A fine needle inserted through the intricate carvings.

Saptamatrikas

A sculpture depicting the seven powerful mothers of the deities Brahmi, Maheshwari, Kaumari, Vaisnavi, Varahi, Indrani and Camunda. This scroll is a part of an epic story related to lord Siva and this victory over *Andhakasura*.

In this piece of art, all the goddesses are represented as seated in the *Ardhaparyanka* pose with the mount carved on the pitha and the goddesses have four hands.

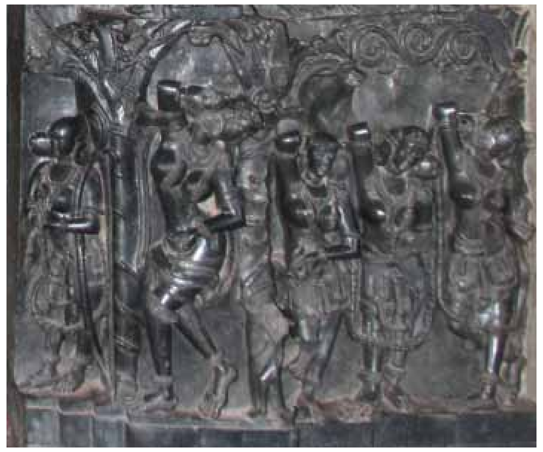


Image 2.49: Dancers in *Antarala* of Rudreshwara (Ramappa) Temple

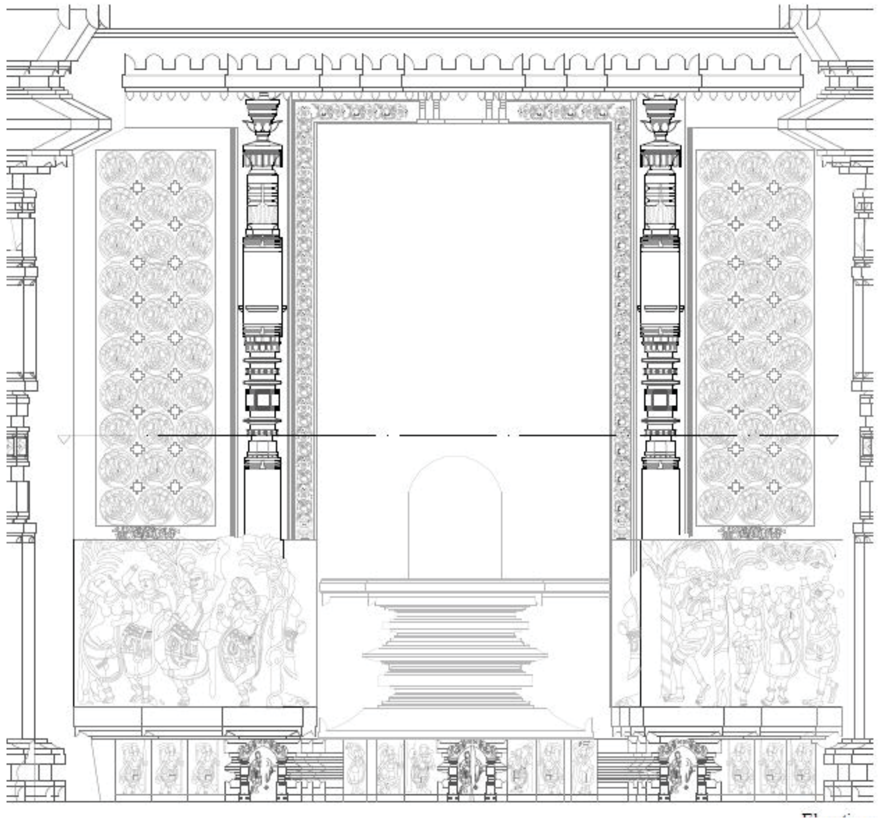


Figure 2.6: *Antarala* Dwara is richly carved

8. Dwara

The door frames of the sanctum sanctorum and *Ardha Mandapa* are noted for their marvelous intricacy, beauty, bewildering wealth of details and a very high degree of artistic finish even to the minutest details[25]. It is carved with creeper scrolls, *Makara-torana* on the lintel and *patralata* (creepers) with inset figures of dancers.

Antarala Dwara

The jali work of *vartula* with dancers and musicians, *Dalamalika* and Nataraja panel make this doorway perhaps the most ornate one in Telangana. Latticework on the either side of the doorway of the *Antharala* contains circles formed by a creeper, enclosing drummers and dancing girls. They are twenty dancers and forty drummers, thirty on each side in three vertical rows. In spite of repetitions of the postures, the variety is pleasing.

Image 2.50: Creeper scroll acts as a perforated wall allowing light to the *garbhagriha*

Apasmarapurusa

Image 2.51: *Apasmarapurusa* on the lintel of *Ardha Mandapa dwara*

On the lintel of the *Antarala dwara* is a sculpture of Siva dancing on *apasmara*, in the company of the *Matrikas*, Ganesa and Camunda, who begins the series, and Ganesa, who ends it are equally hilarious in their dance[26]. The other *Matrikas* are just commencing the dance, sway their bodies in lovely flexion, but their dance is yet to begin, *Nandi* is seated at one end to watch the dance,and the chauri bearers are flanking Siva and moving the fly whisk gently . Siva dancing amidst the *Matrikas* is a popular theme of the Kakatiyan art.

The *Kathasaritsagara* refers to the mother joining to swell the dance movement of Siva, of *Kalabhairava*, who dances amidst them on the crematorium. In such representation *Chamunda*, usually has one of her hands in *sucimukha*, near the chin, connoting wonder.

Image 2.51: Detail of the characters on the lintel scroll

The lower segment of the doorjamb is carved with *Dwarapalikas* playing with lord Krishna. The branch which the *Dalamalika* is garlanding herself to has a unique feature attached to it. The pillar is sculpted hollow and created the seven musical notes when tapped at different points of the pillar.

Image 2.53: Figure of *Dwarapalikas* with the musical pillar.

Garbhagriha Dwara

The sculptures on the *Garbhagriha* is a solid composition of pilasters consisting of rows of *Vyalas*, *Madanikas* and floral scrolls. The lower part of the door jamb is adorned with *dwarapalika* as per the *Shilpa sashtra* rules. The foot- rest is designed as a miniature version of the temple*Upapitha* carved on dolerite. The lintel band of the doorway has pilasters of *Vimana*.

Image 2.54: Details of the *Kudyasthamba* on the door - jamb of *Garbhagriha*

9. Bharasila

Every inch of the four entablatures which support the *Natya Mandapa* experienced the touch of the Kakatiyan master sculptor's chisel.

Image 2.55: Tiers of the *bharasila* with scrolls of *Puranic* stories

Tripurasura- Samhara Murty

Panel depicting scene from a *Puranic* story of Siva being evoked by other gods to assassinate *tripurasuras* (three demons). The figure of a Jain *tirthankara* in the panel is unique and therefore noteworthy. Siva in alidha over a four-wheeled chariot drawn by a charioteer faces the viewer in a triumphant mood. The galloping horse of the chariot, Ganesa flourishing the weapons, the flying figures and the poses of the other figures beside the *thirthankara* lead on illusion of movement to the panel.

This sculpture has battle scene in action of a stage chiseled out of a deep cavity. The actors in the drama are vigorously bought fourth. The presentation is not overcrowded to confuse the mind of the viewers.

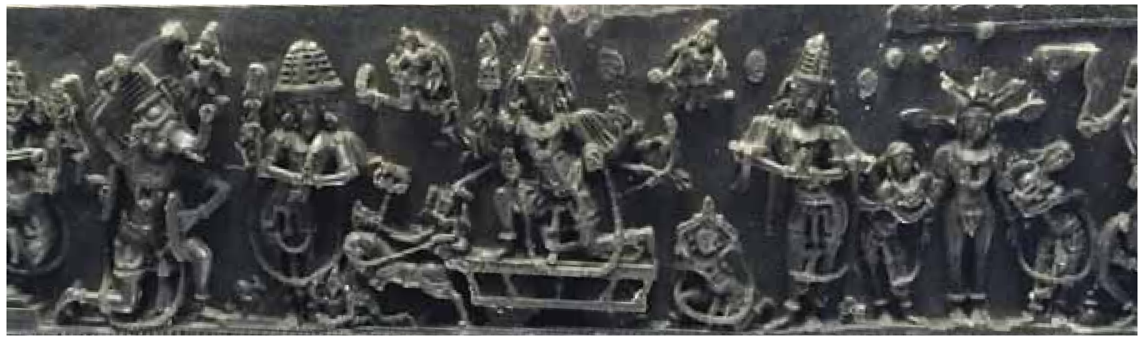


Image 2.56: *Tripurasura - Samhara Murty* panel at the bottom of the beam above the Natya Mandapa

Roof Beam

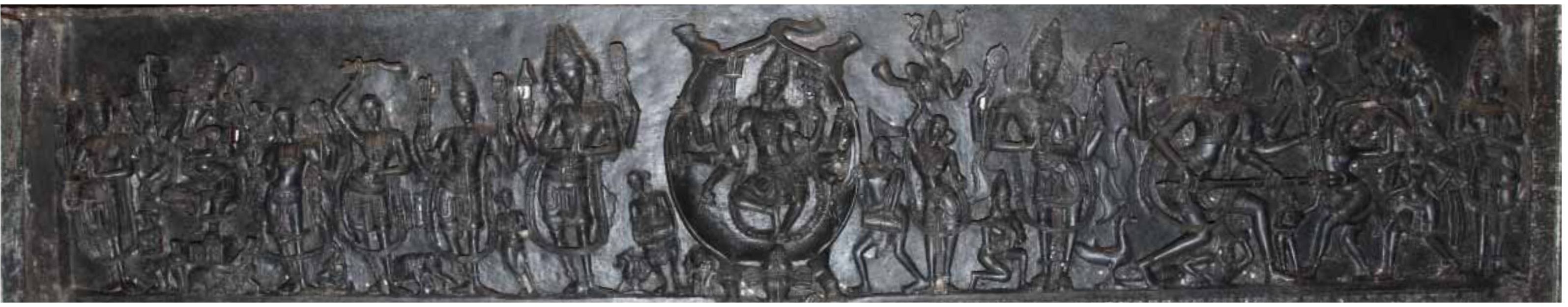
The beams are decorated with lotus design and figure sculptures depicting the mythological scenes. They depict various scenes from the *Puranas* and mythological stories.

The four beams of rectangular cross section of the run along the four sides of the square formed face of the beams; all the three visible faces are carved with beautiful scenes of *Sivatandava*, Siva *Parvathikalyanam*, *Saptarsis* , *Tripura Samhara , Andakasurasamhara , Gajasura-Samhara* and the game played by Jaganmohini[27], which experienced the touch of the Kakatiya master sculptor's chisel.

Gajasura Samhara

Panel representing Siva engaged in a vigorous dance on the elephant demon's head after killing him. Siva is accompanied by other gods Vishnu, Indra, Ganesha, Brahma, Vishnu, Indra, Kumaraswamy and musicians.

Image 2.57: *Gajasura Samhara* panel at the bottom of the beam above the *Natya Mandapa*.



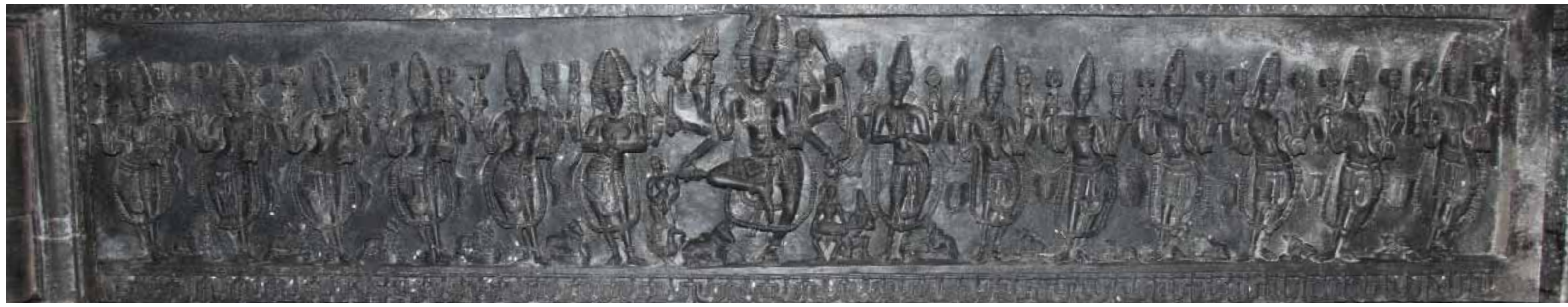


Image 2.58: Gouri Kalyana panel at the bottom of the beam above the Natya Mandapa

Gouri Kalyana

Panel showing Siva in a procession towards *Kalyanavedika* seated on his mount Nandi followed by other gods is present on one of the beams of the *Natya Mandapa*

Ceiling

The underside of the *konavattams* and *chandaravattams*, are delineated in the fashion of leaves. The central cutting slab has geometrical patterns.

The central pendant found in the *Natya Mandapa* is shown projecting downwards considerably on its underside is *Sivanataraja*. The *Sivatandava* is composed with a complex series of linear movements which tends to take a ceaseless motion.

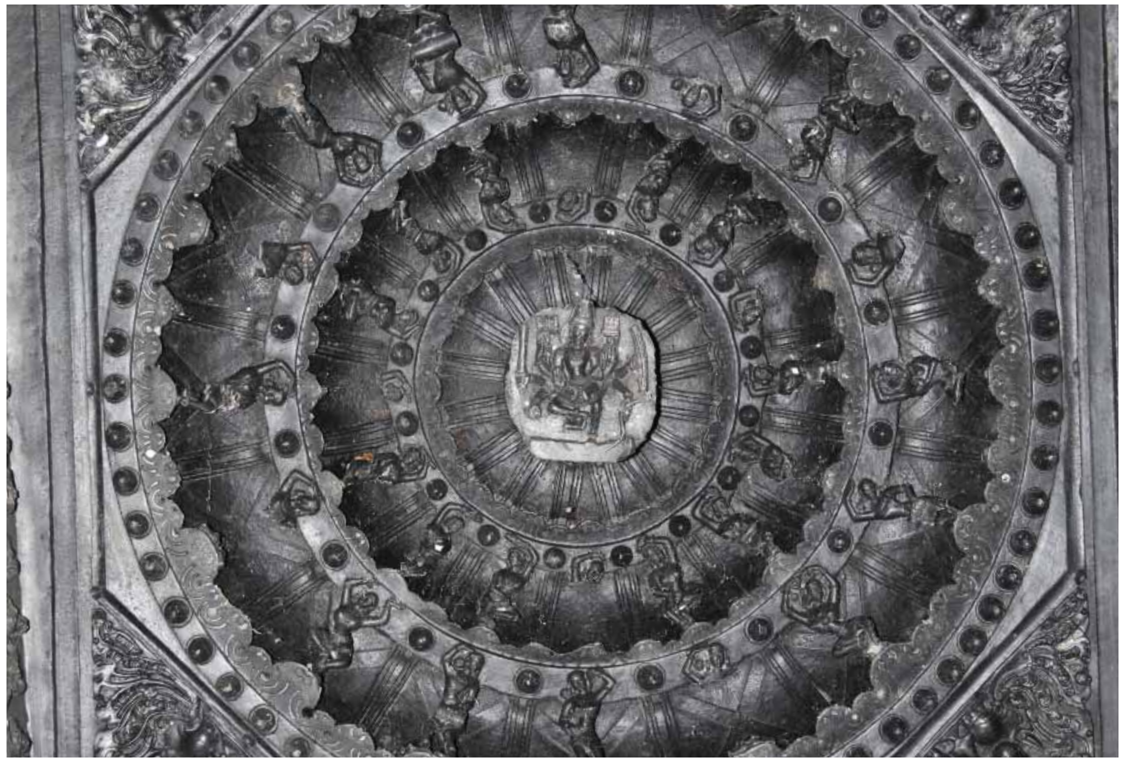


Image 2.59: Siva in the *tandava* pose

Tripurasura- Samhara Murty

Siva as *Tripura-Samhara Murthy* can be seen on a lintel of the ceiling of *Natya Mandapa* of the temple. This is a unique panel as Siva is depicted not in action with the bow, and his lower right hand is in *abhayamudra*, probably granting protection to the frightened divinity. Indra, Ganesa, Brahma and Vishnu are also shown in the sculpture. The figure of a naked *bhiksatana* Siva seeks with the *rishipatnis* in the panel is unique and therefore noteworthy. He is in *dhyana-mudra*. The gods, goddesses and celestial maidens are invoking the lord to fight with the three asuras. Siva having been pleased rides on the chariot to destroy the *tripurasuras*. In this panel the galloping horse of the chariot, Ganesa flourishing the weapons, the flying figures and the poses of the other figures beside the *tirthankara* lead on illusion of movement to the panel.

Image 2.60: *Andhakasura Samhara* scene on the *Konavattam* of the *Natya Mandapa* ceiling

Andhakasura Samhara

The scene of *Andhkasura Samhara* episode in purposefully represented in a triangular frame of the ceiling of the *Natya Mandapa*. The colossus form of Siva in tandava, after destroying the demon *Andhakasura* with his forceful trident, thrust in to the body of the demon is gratefully worshipped by the diminutive forms of Brahma and Vishnu flanking on both sides and the still smaller figures of musicians attuned to the dance of victory. The carver's intention to project the triumphant Siva as the greatest of all the gods is amply fulfilled. This is an excellent example of best utilization of a limited space to emphatically convey an idea to the viewers.

Image: 2.61 *Nandi*– the vehicle of Siva

10. Nandi

The monolith of *Nandi* by the Kakatiyas holds a superior quality in craftsmanship. The *Nandi* exhibits a considerable degree of masculine prowess. To give a life like finish to the *Nandi*, the sculptors didn't miss out showing the veins of the *Nandi* present under the skin of the stately bull.

> *"The nandi has a cubistic head and front classified by chains of neck ornaments that suggest gold"*
>
> - M. A. Dhaky

2.a.vi. Engineering Marvels of Kakatiyas

The Kakatiyan *Sthapatis* had not left a place unturned in experimenting and creating new styles and technologies in the construction of the temple. The *Kadalikakarana* style introduced to reduce the burden of carrying huge pieces of dolerite. Cavity walls introduced to keep the interior of the temple cool as Palampet lies in a hot region. The introduction of sand-box technology for the foundation of this lofty temple is a marvel in itself.

1. Sand-box Technology

Kakatiya builders have placed great reliance on the strength behavior of confined sand, and any cause that affects the confinement of sand would also affect the performance of the entire structure resting on it. Sand-box technology is adopted for the foundations.

The need for utilization of sand as a foundation material is of two fold, primarily as sand in the sand-box under confined conditions with optimal density to take care of the static and the dynamic loads coming on to the foundation. Secondly over lying well carved members and for uniform load distribution in addition to overcome the pockets of concentrated stress in the cavities.

The method of construction of Kakatiya Temples was to excavate a wide foundation pit 2m to 3m deep below ground level and fill it with sand which acts as a "sand cushion" under the foundation, a technology which is still being practiced in areas where expansive soils are found. Then a retaining (basement) wall of dry stone masonry without any cementing mortar was constructed over the sand cushion all- round the periphery of the temple to a height of 1m to 2m above ground level and then the space inside the walls are filled with sand. They followed a pattern of star type construction for accommodating *Trikuta*[28].

The second inner retaining wall of 1.5 m height was built above the *Pradakshinapatha* and the box was filled further with sand. Thus the total sand thickness from the bottom of the foundation pit to the top of the second retaining wall was about 6.00 m. The main floor of the temple was then laid on the sand bed by heavy sandstone slabs and beams covering the entire inner box with no mortar. On this prepared platform the columns were installed at appropriate places, taking care to see that their load is distributed on to the sand bed through the floor beams. The cavity walls built for the sanctum sanctorum were also directly resting on the floor on the sand bed.

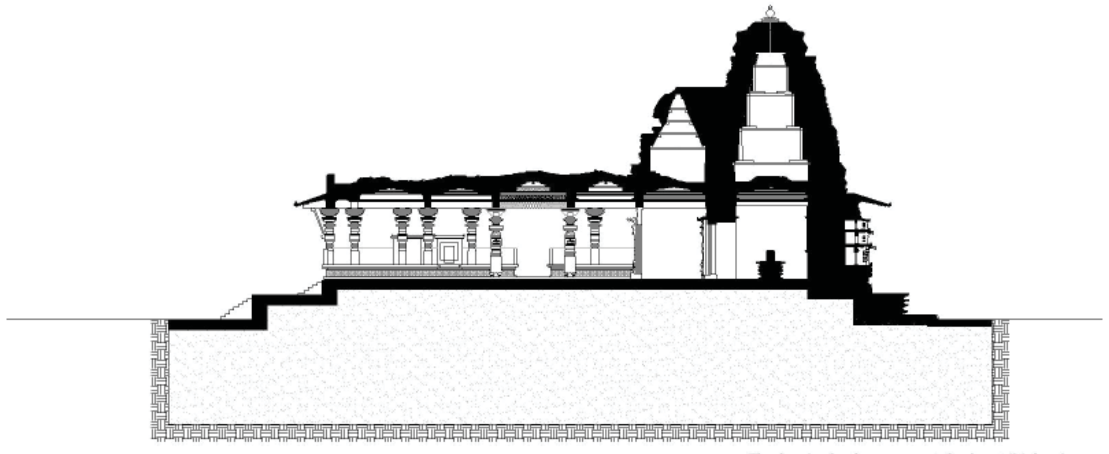


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Figure 2.7: Cross section of the *Sabha Mandapa* - Sand - box technology used in the foundation

2. Cavity wall

The walls of the temple are built of large slabs of masonry and have a double shell, the core being hollow in the middle. This method of building is exposed to view where the outer shell of the wall has been destroyed by climatic or other causes[29].

Main temple walls are cavity walls constructed by two rows of stone blocks spaced at a distance of 30cm to 60cm and filled the hollow by sand, soil and other construction debris. They have relied heavily on the confined sand-box method of construction. The load bearing columns and walls directly constructed over the proposed floor beam grid is resting on the sand-box. It has been confirmed that even for the load bearing elements; the foundations have not been taken on the hard strata. The builders have placed great reliance on the strength behavior of confined sand and any cause that reduces the confinement of sand, adversely affect the performance of the entire structure resting on it[30].

Image 2.62: Cavity wall of the *Prakara* wall

3. Interlocking of stone components

The stone components in the construction were joined together without the use of any binding material. They were connected with each other simply by interlocking the components. The interlocking devices include projections and curvatures carved in the rocks for better stability and for prevention against sliding.

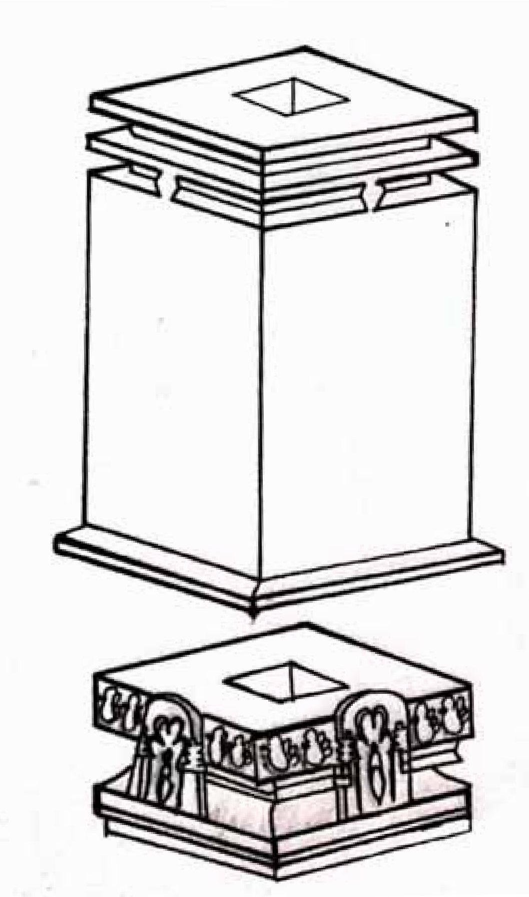


Figure 2.8: The *madhyabhaga* and *Tala* components of the pillar are connected by interlocking the stones and without using any mortar

4. Earthquake resistant structures

Kakatiyas have integrated all the members including *Pradakshinapatha*, *Kakshasana*, cavity walls and roof elements through iron dowells so as to allow the monument to act; like a monolithic structure. In addition they have introduced dove-tailing, tongue and grove joints and interlinking the members with cup and cone technique to withstand various vibrations induced including earthquake forces, which normally produces horizontal acceleration. In the case of Rudreshwara (Ramappa) Temple, the floor beams have failed viloently creating upheavels to the tune of 10cm to 20cm have created differential settements in the structure and yet, the entire structure is intact. This speaks volumes of their ingenity in accomodating additional factor of safety. In order to incorporate the monolithic structure to the monument, the Kakatiya engineers had integrated all the rock elements with iron dowels, thus creating stability even during earthquakes of moderate intensity. The horizontal acceleration produced during an earthquake will have a tremendous impact on the structure if they are not interlocked together. The structure vibrates as a monolithic member and the sand in the sand-box will act as an absorbing cushion, reducing the impact on the structure reducing the impact of the horizontal acceleration induced by the earthquakes.

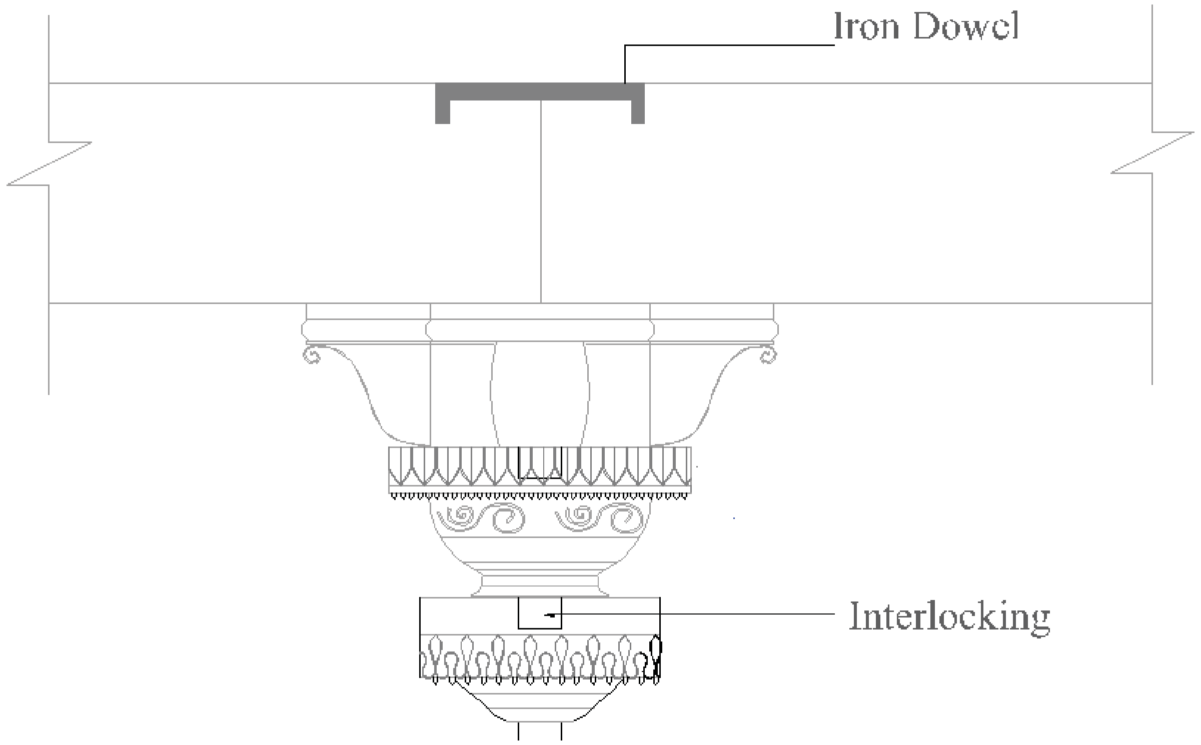


Figure 2.9: Iron dowels inserted between the horizontal beam components adding additional strength to the structure

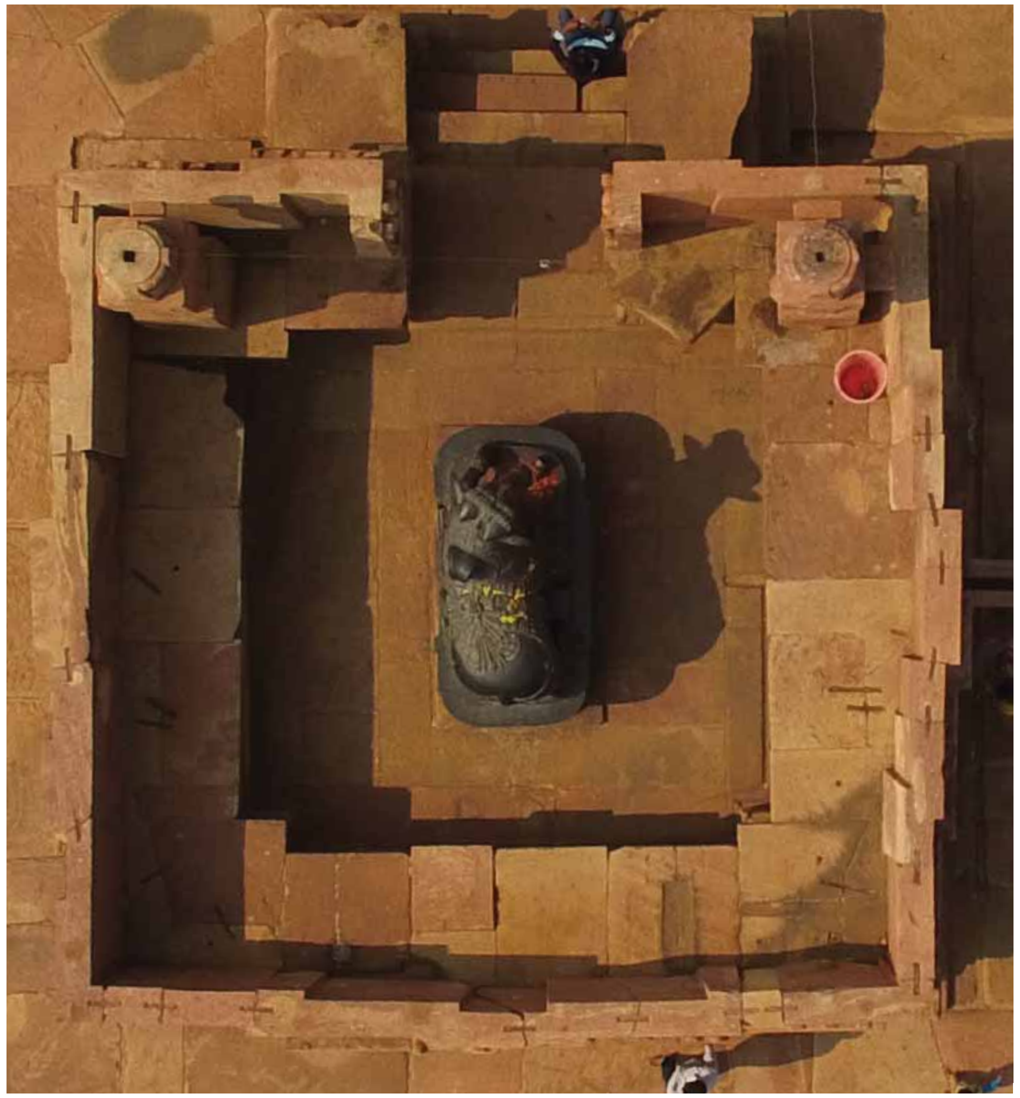


Image 2.63: The parts of stone used in the making of the wall are connected using iron dowels

5. Kadalikakarana[31]

It is the method of constructing the ceiling in the Rudreshwara Temple.

The principle employed for the construction of this type of ceiling is that of laying stones one over the other and drawing of each layer inward from above. The reduction of space, as it goes up, is achieved by placing triangular stones at each angle of the square compartment. Finally the top portion is covered by a single slab of stone. In this type of ceiling, as the tiers increases, the number of corner and central stone slabs is correspondingly increased.

The courses of stone slabs are layers as *Konavattams*, *Chadaravattams* and finally topped by the ceiling slab.

Konavattam

Konavattam is placed above the beam. It is the largest triangular slabs on the ceiling.

Chadaravattam

Chadaravattam is the triangular slab present in the 9 compartmented ceilings between the *konavattam* and the ceiling slab. The slab is smaller in size when compared to the *konavattam*. They are placed diagonal to the previous tier to form a twisting effect.

Ceiling slab

The roof of a compartment of the temple is closed after the ceiling slab is placed on its *Chandravattam*.

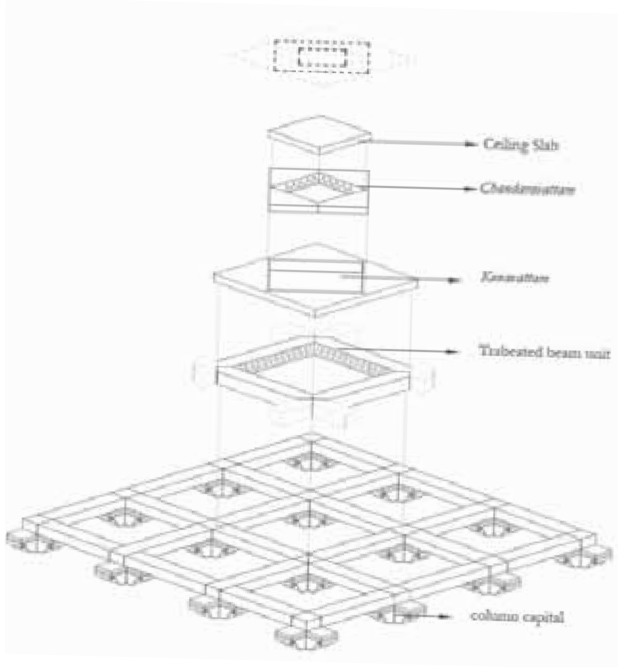


Figure 2.10: Components of the ceiling placed in the *kadalikakarana* method of construction

6. Load transmission

The Kakatiyas had an enormous knowledge of the use of materials. This can be seen in the wise usage of materials based on their properties. The temple has been built with three principal rocks namely sandstone, granite and dolerite. The observation of distribution of load on four inner columns of the main temple clearly shows the high intensity of load transmitted.

The columns were erected on the sand-box floor prepared. The roof beams were installed over them to form the grid.

7. Sculpture making geology

Methods and techniques:

The technique of cutting through around the central figure to bring it in lime light is a novel method adopted by the Kakatiya sculpture. The floral canopy of the late Chalukyan art is still continued but in symbolic form only. The flowing creepers are springing out of the snouts of the *makaras*, placed over the miniature pilasters carved on either side of the principle figure.

Tools and implements

The *sthapati's* tools and implements consist of a large number of chisels and hammers. The chisels and hammers vary in sizes depending on the stage of work.

Rough chiseling to eliminate huge chunks of stone require forceful hammering and the hammers intended for this purpose are heavy and the chisels have large working ends. Smoothening the surface and execution of delicate carving work require soft handling and needs minimum force to be applied. The hammers for this type of work are lighter and chisels are slender and pointed.

Chiselling and polishing

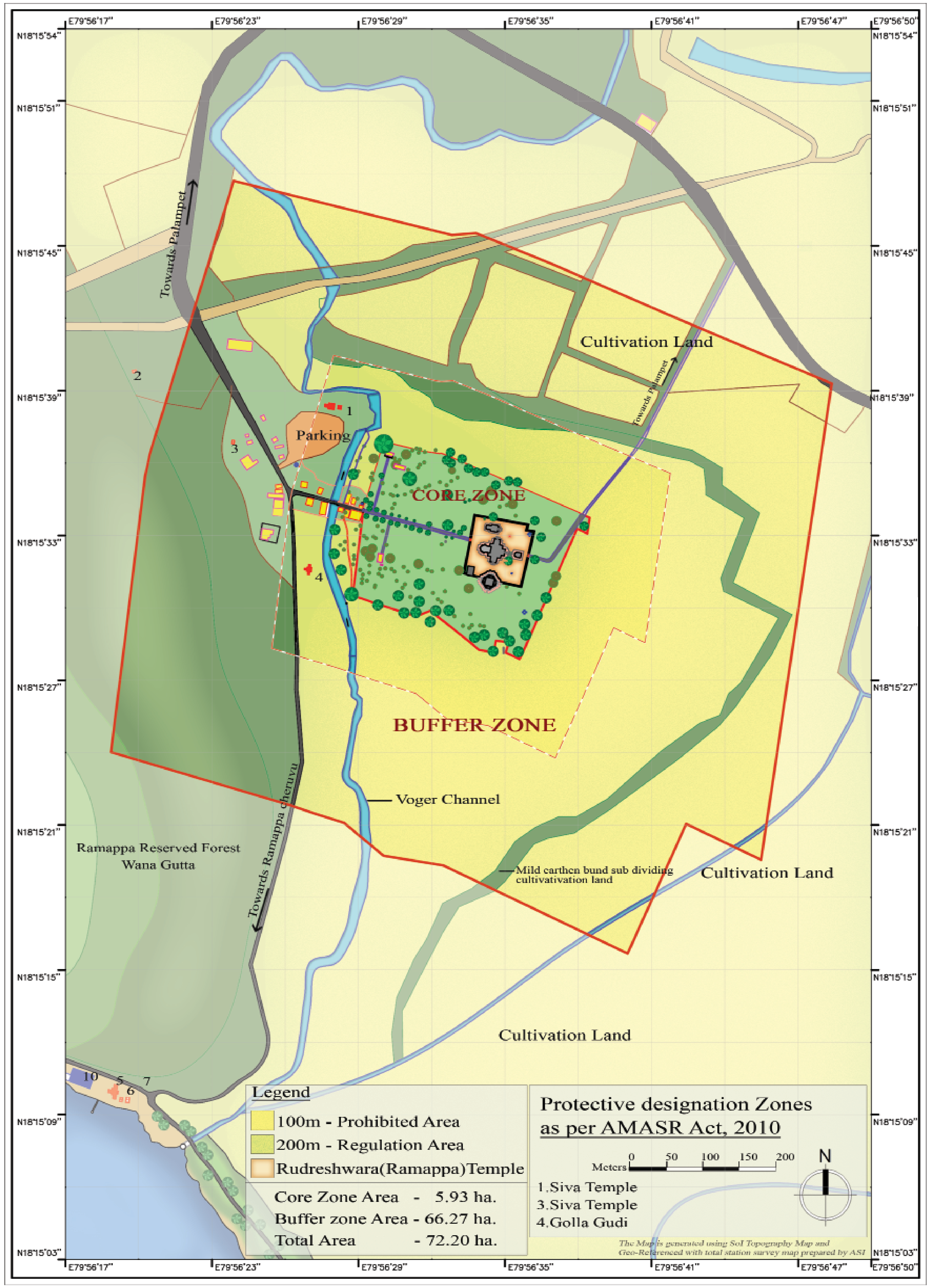
The chiseling of a sculpture is done many times all over the image. The *shilpi* working on his image executes four lines of work.

Heavy chiseling- the first line is executed with *Vettappu* or the heavy chisel with blunt working end. The aim of this is to eliminate as much unwanted stone as possible and to prepare a crude outline of the image.

The second line of work is executed with theivus or chisel proper. The crude outline is chiseled to work out the clear features of the image. At this stage the stone is carefully scraped. The chisels have pointed working ends which can dislodge only a small piece of stone at every beat.

The third line of work is executed with *Arappasam* or *Palamunai*. When the surface is even, *Palamunai* is used and when it is uneven as in the contours or image, *Arappasam* is used.

The next item of work is polishing the surface of the stone. This is done by rubbing iron powder of varying coarseness over the stone surface. First rough crumbs over the surface, successively nicer powders are rubbed till the stone attains a high polish and glistens.

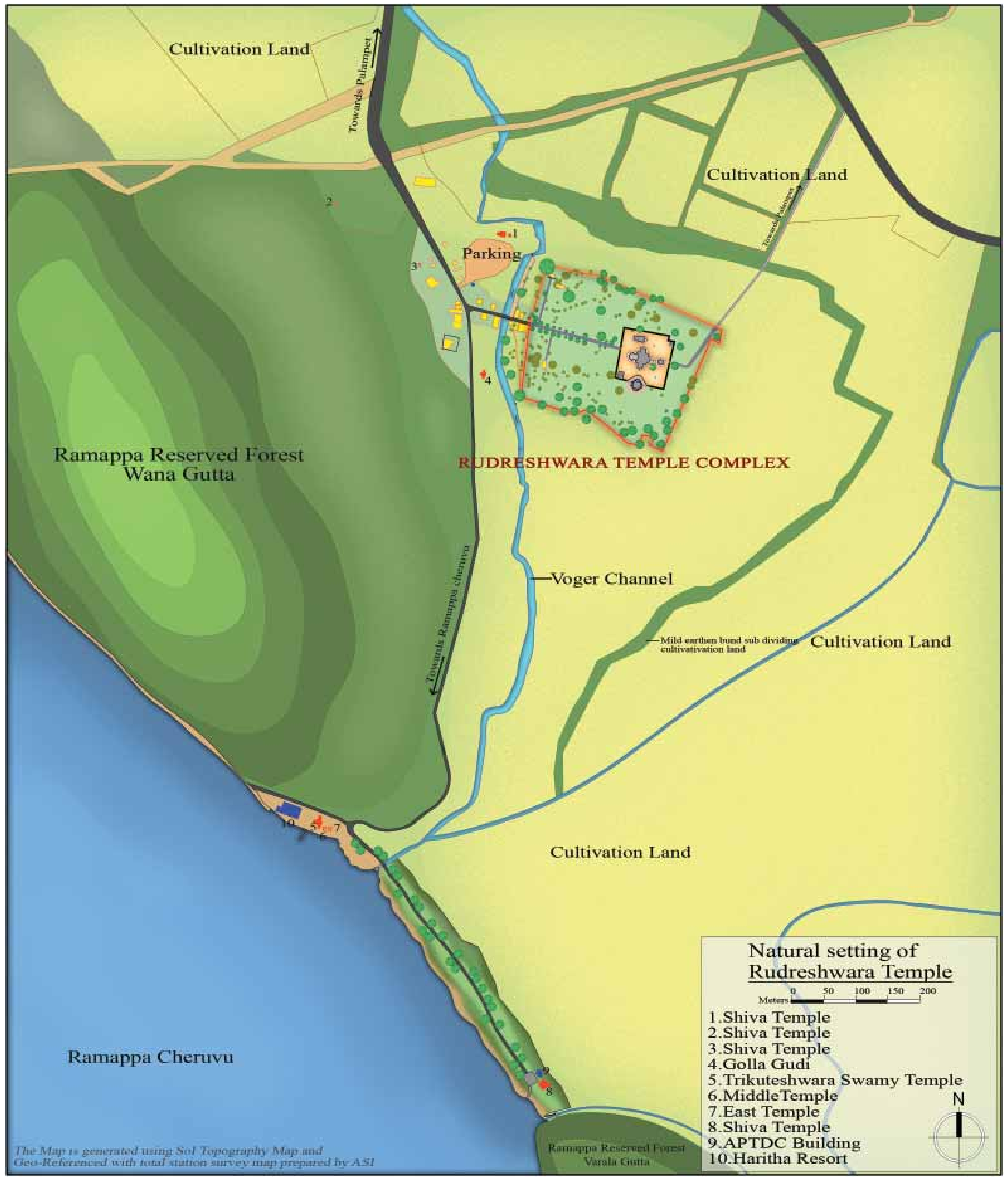


Map 2.2: Core & Buffer zone Map of the nominated property

2.a.vii. Buffer zone

The buffer zone of Rudreshwara Temple consists of the Prohibited and regulated zone as demarcated by the ASI under the AMASR Act (Annexure I). The buffer zone is therefore marked to be 300 meters from the core zone boundary.

The buffer zone is a natural setting consisting of the agricultural fields of Palampet village, part of Ramappa reserve forest and voger channel.



Map 2.3: Rudreshwara Temple and its surroundings

b. Surrounding Temples

Besides the Rudreshwara Temple complex, there are several minor temples exquisitely carved and situated within a distance of about half a mile from the main temple. All these temple are dated to be built during the Kakatiya era.

	Name of Temple	Co-ordinates
1	Siva temple	18^{0}15’37.71” N 79^{0}56’23.41” E
2	Siva temple (near rice mill)	18^{0}15’39.13” N 79^{0}56’29.09” E
3	Trikuteswara swamy Temple	18^{0}25’22.58” N 79^{0}93’93.21” E

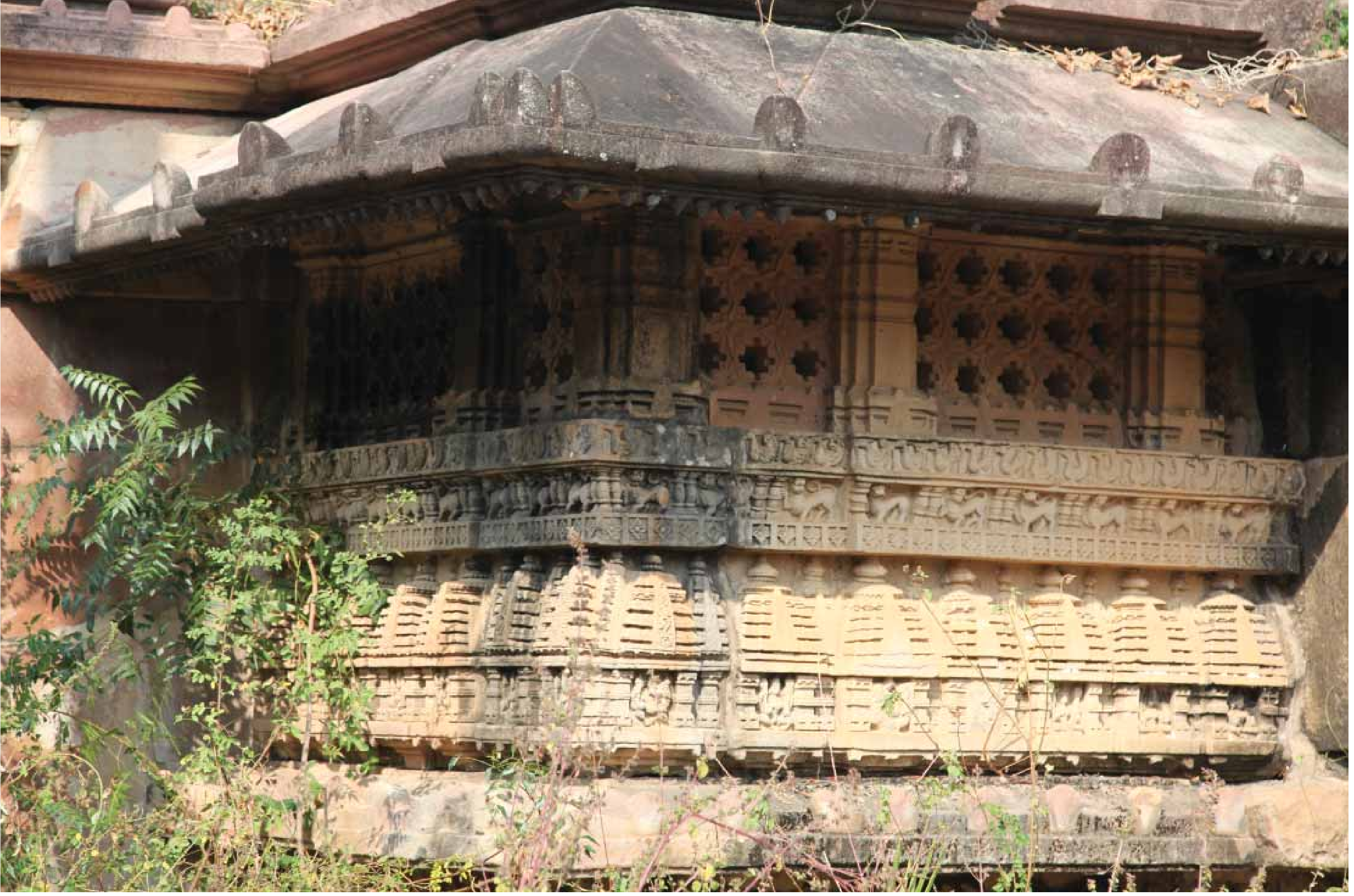


Image 2.64: Exterior of Gollagudi Temple

1. Gollagudi

Situated on the south-west of the main temple. It is a *trikutalaya* consisting of a *mandapa* on the east and three *Garbhagrihas* on the north, south and east of the temple. Parapet with sculptures, rows of *hamsas* carved on the entablature and doorways with *jali* work are the special features of this temple.

2. Siva Temple

This temple is just a heap of ruins situated to the north west of the main temple. The plan of the building consists of an open pillared hall, an antarala and a square garbhagriha. There is also a detached open mandapa in front of the temple which probably served as the *Nandimandapa.*

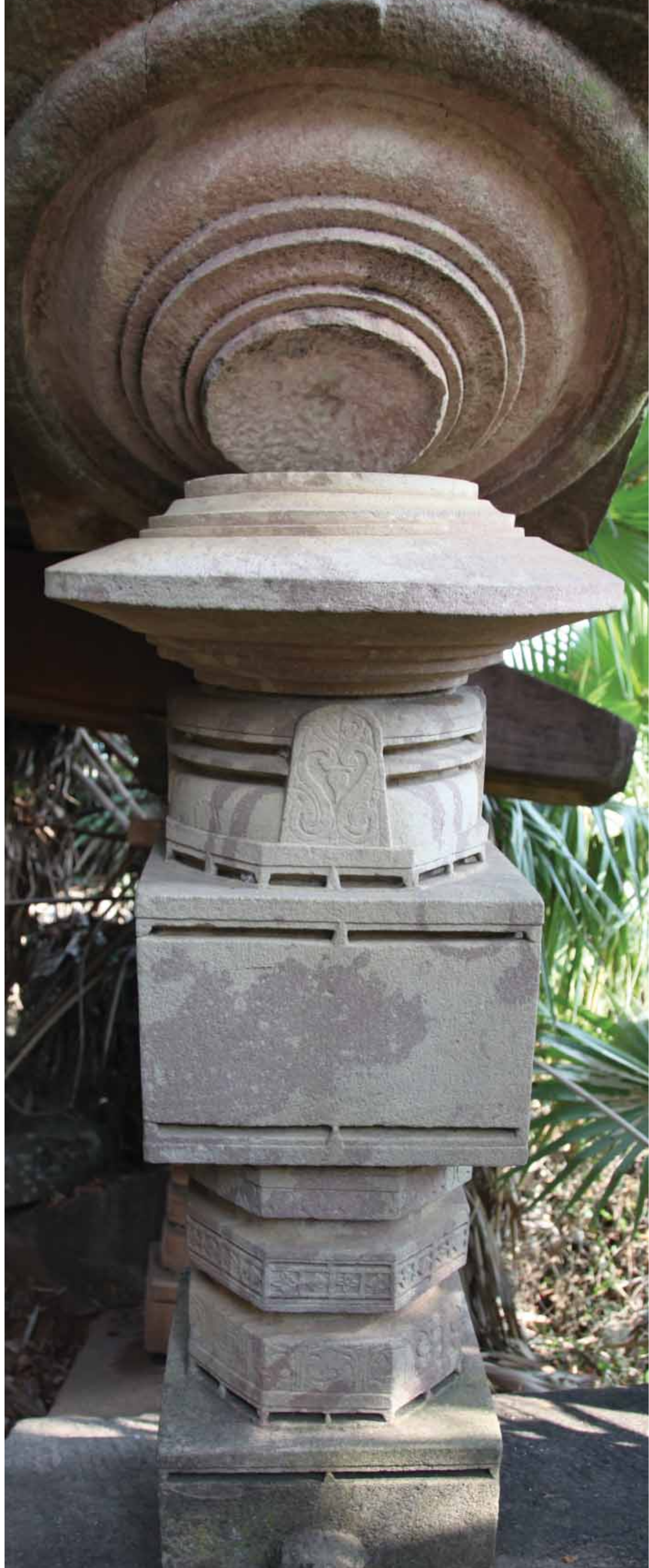


Image 2.65: Fallen column at Siva Temple

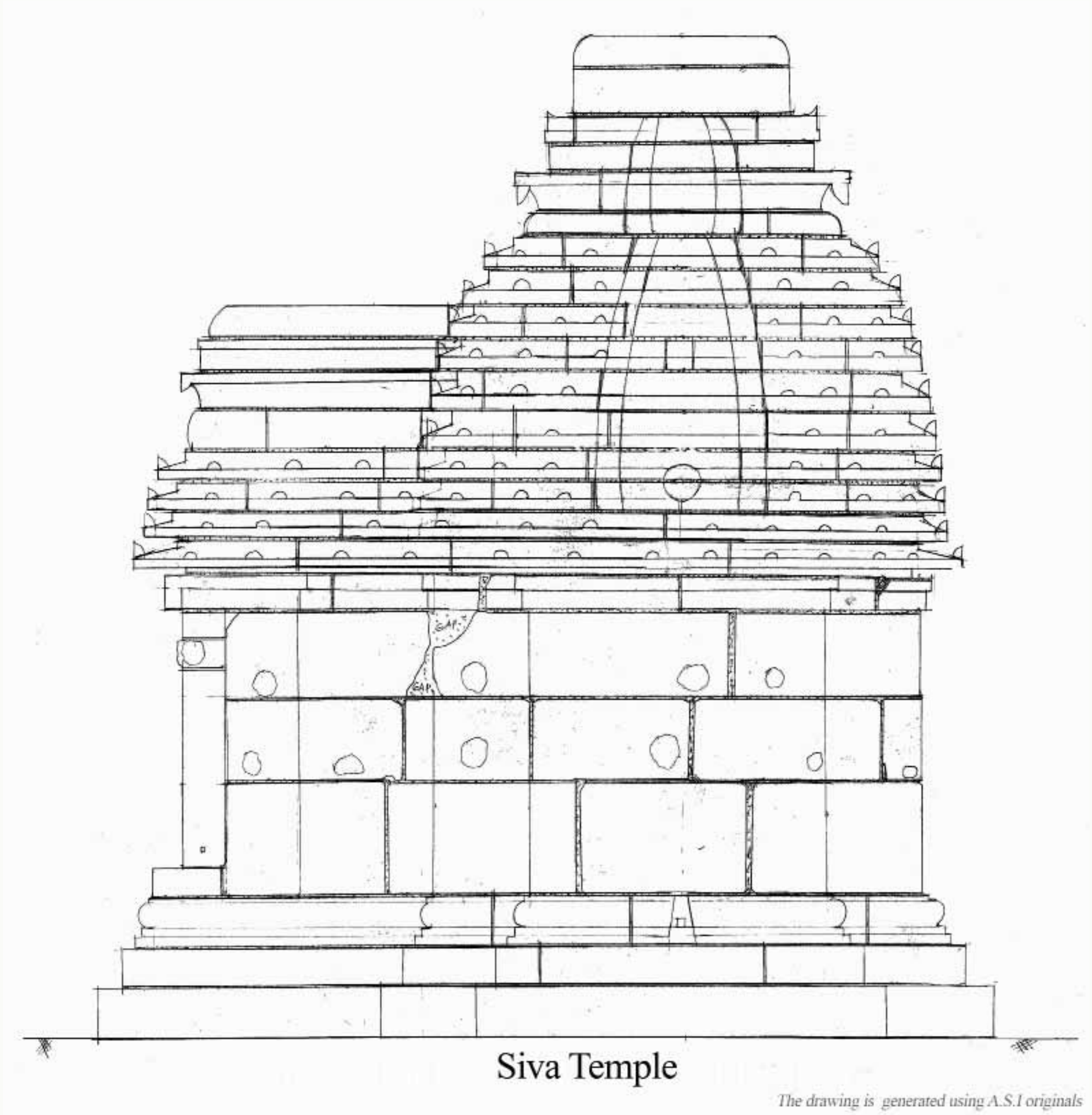


Figure 2.11: Elevation of Siva Temple

c. Reserve forest

Vana Gutta

The Natural setting of Ramappa would not be possible without the hills of the Ramappa Reserve forest consisting of *Varala Gutta* and *Vana Gutta*. The Ramappa *Cheruvu* was formed in a catchment of the hills forming the present reserve forest. The forest hill is the lungs of the region giving a permanent green cover.

Image 2.66: *Vana Gutta* (Ramappa Reserve Forest)

Agricultural fields

The region of Telangana was a dry and drought prone region before the advent of the Kakatiyas. The Kakatiyas found a potential in the soils of Telangana and built huge lakes for the growth of crops in the region. After the construction of lakes, water was available in excess in the region enabling the farmers to produce paddy crops for Kharif and Rabi seasons.

Image 2.67: Agriculture fields of mirchi (Red chillies)

Voger Channel

The natural setting of a temple was consciously planned with a waterbody in its surroundings by Kakatiyas. The voger channel was created by the Kakatiyas from Ramappa Cheruvu to the far villages of the region to irrigate the surrounding fields.

This channel passes through the western side of the temple. The channel is part of the irrigation channel system of Ramappa Cheruvu.

2.a.viii. Socio economic scenario

The Kakatiyas had inherited much of their political culture from their former Chalukya overlords, the two houses differed profoundly claimed warrior (*Kshatriya*) status and adopted grandiose imperial titles like *Maharajadhiraja Parameswara*. The Kakatiyas, on the other hand, claimed neither *Kshatriya* rank nor imperial status[32]. Instead Kakathiyas and the Telangana's other leading warrior families proudly claimed to belong to the lowest (*sudra*) section of India's traditional four-fold *varna* system of socio-ritual ranking.

a) Role of Temple

The political, religious policies of the state evolved temple and its allied institutions as centrifugal and centripetal force that regulated the lives of the people.

The temple was not merely a place of worship; it filled a large place in the cultural and economic life of the people. Its construction and maintenance offered employment to number of architects and craftsmen who vied with one another in bold planning and skillful execution. The making of icons in stone and metal gave scope to the talents of the best sculptors of the country. The daily routine gave constant employment to number of priests, choristers, musicians, dancing-girls, florists, cooks and many other classes of servents. The periodical festivals like *Sivaratri*, *Ekadashi* etc. were occasions marked by fairs, contests of learning, wrestling- matches and every other form of popular entertainment. It also served as the town hall where people assembled to consider local affairs or to hear the exposition of sacred literature[33].

The enlightened Kakatiyas had embarked upon liberal construction of different temple forms invariably associated with water tanks and thus realizing the twin objectives of *punya* and *purushardha*.[34]

b) Saptasantanas

The temple of Rudreshwara along with the Ramappa Cheruvu was constructed by General Recharla Rudra on the ideology of *saptasantanas*. This is revealed from the inscriptions inscribed in the inscription pillar present in the Temple complex.

Saptasantanas was a popular ideology of conducting seven meritorious deeds. Its constituents viz: (i) *brahman* village, (ii) gifting a son, (iii) dedication of literary peace, (iv) hoarding of treasure, (v) excavation of tank, (vi) raising a grove, and (vii) construction of a temple, were sanctioned by the *dharmic* texts and approved by people and polity as common shared ideology and practices for attaining merit.[35]

c) Influence of Tank on the Temple

The Kakatiyas were the first to realize that the red and sandy soil of Telangana, lying on a bed of granite and crystalline rock, was extremely fertile and eminently suitable for wet cultivation, though its porous character demanded a plentiful supply of water to make it fruitful and to yield sufficient grain to feed the people. They also saw that if the water following down the many rivers and streams in the country could be conserved and utilized for the purpose of agriculture, wet crops could be raised on a large scale. They accordingly conceived the idea of constructing large tanks and dams in which water sufficient to irrigate vast areas of land could be stored up.

The political - economic policy of conservation of dry to wet lands through deforestation and tank irrigation brought significant changes in the society, they are:

(1) Caste proliferation due to increased inflow of the forest dwellers and autochthonous communities into the society, and

(2) Emergence of new professions related to administration, irrigation-tank construction, maintenance, repairs, water distribution, taxation etc[36].

(3) The temple building activity accommodated artisan communities through shares in the *devabhogas* and contributed for the consolidation of the people into a caste-cum-professional guild, *panchanam varu*.

(4) In dry interior plateaus, the settled agricultural was relatively a new phenomenon and many peasants got recently switched from other occupation, particularly pastoralism and hunting.

(5) The development of tank irrigation in this period there was economic prosperity. This paved the way for proliferation of trading activities and the formation of new trade guilds such as *nakara* and *pekkandru*. These guilds formed by different communities were organized to cater to the ever growing specialized trade.

(6) These developments in the dry region led to developing settlements. Temples were built to monitor the people living in the settlements.

d) Religion

Telangana's socially egalitarian society also structured how, at the highest level, religion and the Kakatiya state was mutually related. Kakatiyas when under the guidance of Chalukyas, had introduced themselves with titles pleasing the Chalukyan kings. After the elipse of the Chalukyas, Rudradeva continued to use the rhetoric of dependence, the difference, however, being that the new overlord was no longer a mortal Chalukya ruler, but the immortal 'Self-manifested lord', Swayambhu Siva. The Kakatiyas ruled at the behest of the god Siva himself, in his form as self-manifest lord of the universe[37].

The Chalukyas on the other hand built many Siva Temples but the then king Vikramaditya VI built the major temples dedicated to lord Vishnu. The royal temple at Kalyana was dedicated to lord Vishnu. Kakatiyas were initially the followers of Jainism who during the reign of King Ganapatideva, became the followers of Saivism. Hence, he built many Siva Temple in this whole kingdom.

The relation of Kakatiyas with Jainism and Vaishnavism is very clearly visible in the sculptures of the temple. Sculptures of *tirthankaras* can be found on the band of figures on the padavarga of the main temple. The scene of lord Krishna playing with the Madanikas found on the door jamb of the antarala doorway shows the Vaishnavism cult during the Kakatiya period.

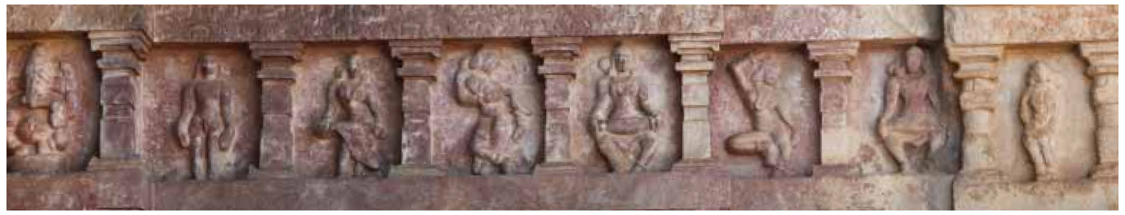


Image 2.68: *Tirthankara* friezes on the *padavarga*

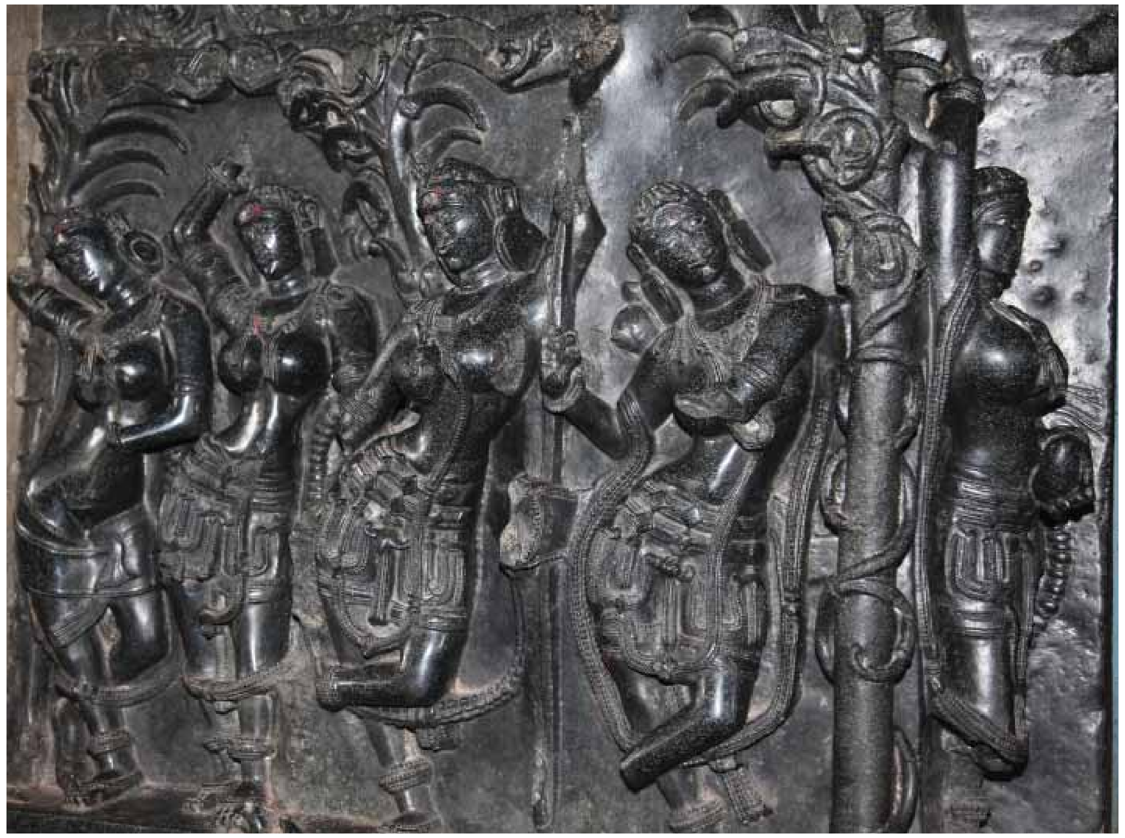


Image 2.69: Musicians and Dancers in *vyatyasthapada* pose

2.b. HISTORY AND DEVELOPMENT

The temple constructed in the beginning of the 13th century is a masterpiece of Kakatiya Temple Architecture. It is the finest example of the medieval Deccan Temples conserved.

Rudreshwara (Ramappa) Temple is part of the Telugu speaking region - Telangana.

2.b.i. Geo-cultural background

Telangana

The origin of the word 'Telingana' is being into use from the medieval times. The term Telangana means the country of the Telugus. The basis for the cultural personality of Telangana is the physiography of the region.

India has seven major physiographical divisions of which Peninsular plateau is one. The Peninsular plateaus consist of five distinct physiographic sub-divisions: Western Hills, Northern Deccan Plateaus, South Deccan Plateau, Eastern Plateaus and Eastern Hills. The South Deccan Plateau again consists of the Telangana Plateau and the Karnataka Plateau. Telangana region thus forms a distinct micro physiographical region[38].

The Satavahanas ruled Telangana region for about 400 years right from the 2nd century B.C. to beyond the 2nd century CE.

After the Satavahanas, the first important dynasty that ruled over Telangana was the Chalukyas of Badami.

Kalyana Chalukyas Dynasty (973 AD-1126 AD)

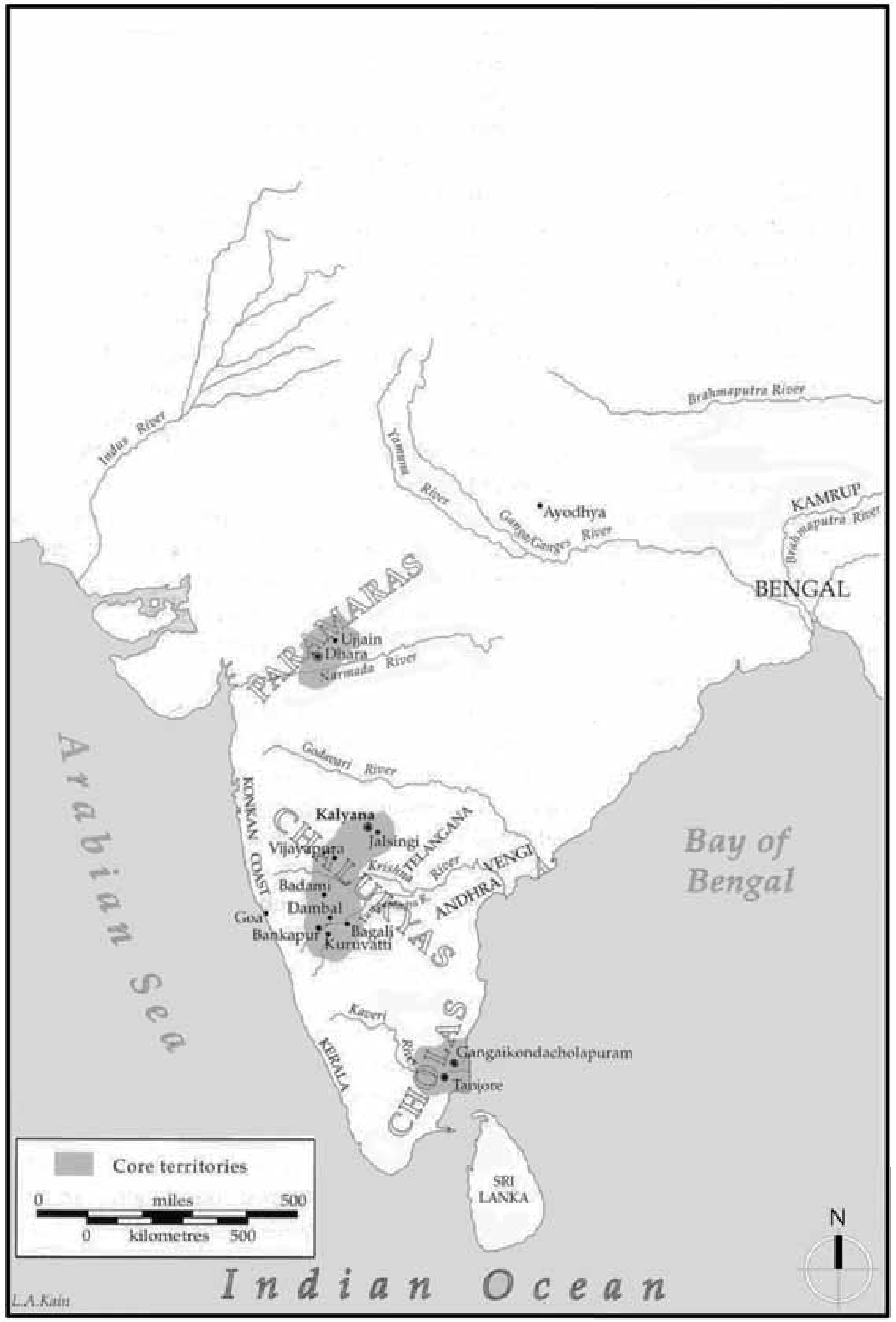
The Kalyana Chalukya dynasty was established in 973 CE. and dominated the Deccan from its capital in Kalyana for two centuries, distinguishes itself from its distant forbearers, the Badami Chalukyas (r. 543-753), whose capital had been Badami in the southwestern Deccan.

Under the Chalukyas, the center of their kingdom was in the Kannada speaking region of Karnataka with their capitals at Badami and Kalyani, with Telangana forming an extension of their dominion.

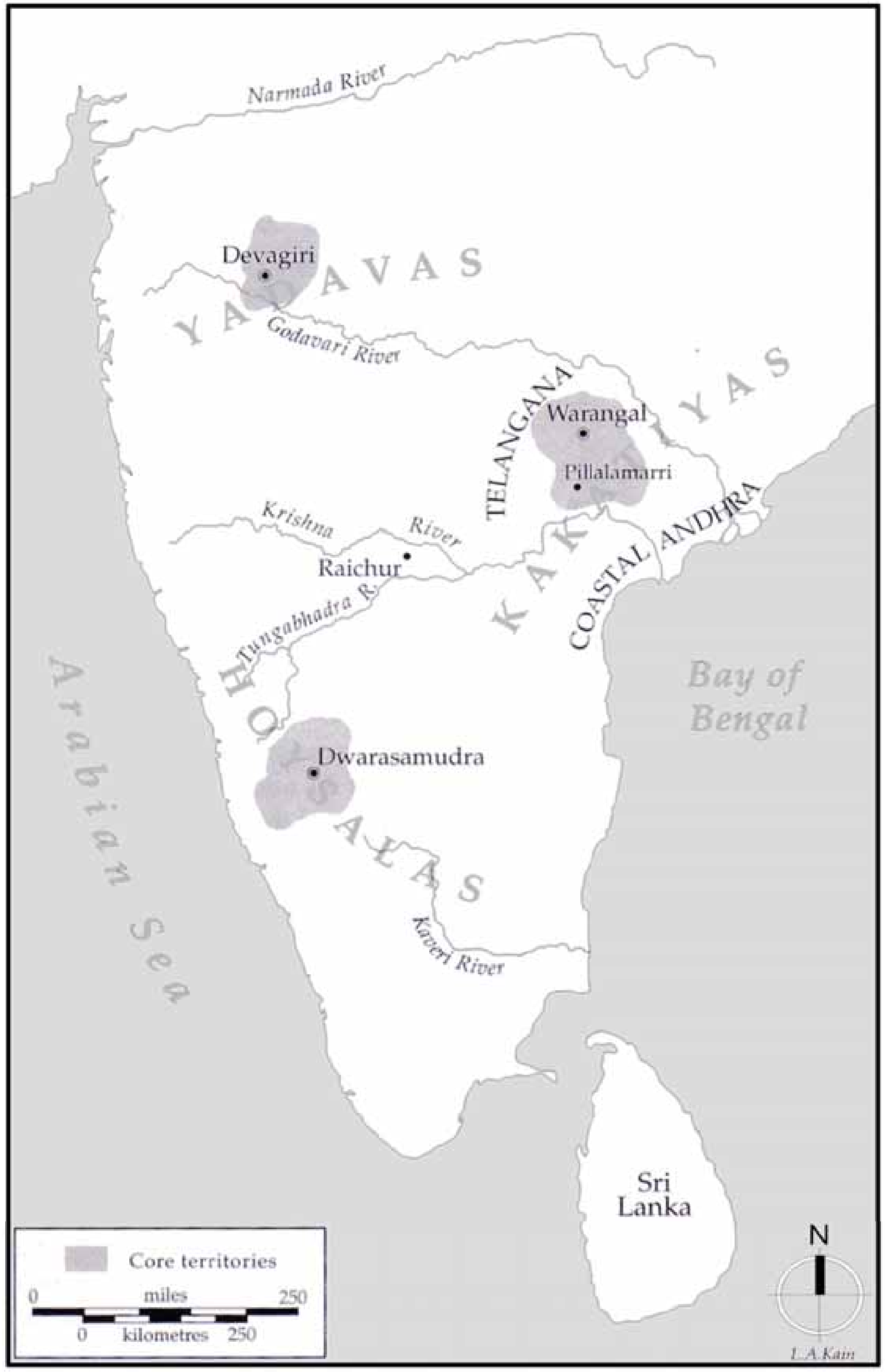
During Vikramaditya VI's reign (1076-1126CE.), the generals were given all the insights of royalty. Although the emperor remained in theory the supreme bestower of honours, over time even this prerogative was increasingly delegated to feudal lords in his confidence[39].

The exceeding of so much authority encouraged the larger feudatory lineages like the Hoysalas, the Yadavas and the Kakatiyas to assert their autonomy from their imperial overlords, a process that accelerated soon after Vikramaditya VI's long reign[40].

As the sprawling Chalukya Empire fragmented and was succeeded by three major regional kingdoms, a trans-regional vision of polity based on ideas of the Sanskrit Cosmopolis was replaced by a scaled- back vision of polity defined by regionally based vernacular languages. Mapping themselves over the Marathi, Kannada, and Telugu speaking regions of the plateau respectively, the Yadavas, Hoysala, and Kakatiya successors to the Chalukyas represented political manifestations of an ethno-regional consciousness that had already taken root across the Deccan.



Map 2.4: The Spread of Chalukyas | © Power, Architecture and Memory



Map2.5: The Chalukyas split mainly in Hoysala, Kakatiyas and Yadavas|

© Power, Architecture and Memory

Kakatiya Dynasty (1123AD- 1323AD)

The Kakatiyas ruled from Hanumakonda at first and then from Warangal(Orugallu then) as capitals of their kingdom and the central part of their dominion being Telangana.

During Ganapatideva's reign (1199-1261 CE.), for the first time the Telugu speaking region got united under one unified rule.

Telangana had fallen to the Delhi sultanate in 1323 A.D with a great destruction to the major temples of the Kakatiyas, especially the Swayambhu Temple in the Warangal fort premises.

Golden age of Telugus

The Kakatiyas and their period occupied a position of predominance in the history of South India. they brought political unification of entire Telugu speaking area, after the fall of the Sathavahanas and before the rise of Vijayanagara kings. Under their enlightened rule, trade, commerce, art and literature flourished and agriculture developed by utilizing every drop of water and conserving it by creating large number of water bodies which are still surviving and giving food and water even today.

The sectarian differences in the realm of the religion were eliminated, education and learning received due recognition and patronage.

Tuglaq Invasion

After invading Devagiri (1325-51 A.D), the Muslims invaded Orugallu and took over the Kakatiya kingdom. They ruled from Devagiri (Daulatabad) as their capital. This shift in capital again lost the importance being given to the Telugu speaking region back to Kannada speaking region.

Being at a distance from the capital, this group of temples was safe from the invasions of the Tuglaqs.

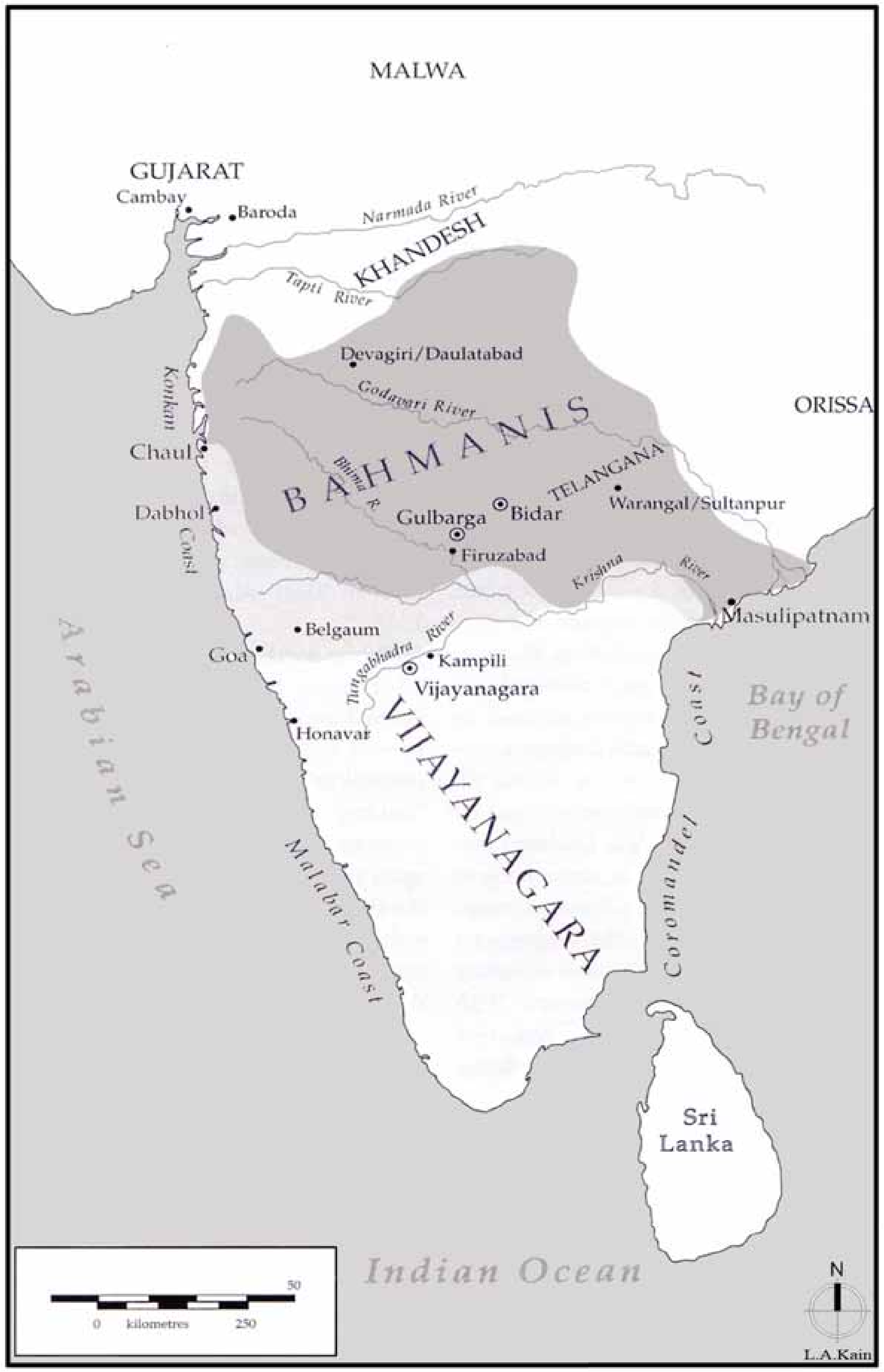
The Tuglaqs control was weak in the Warangal (then renamed as Sultanpur) region.

The Warangal region slipped from the hands of Tuglaqs within a decade and was controlled by two local dynasties- the Musunuri chiefs (1331-68 A.D) and the Recerla Nayakas of Rachakonda (1368-1424A.D) [41].

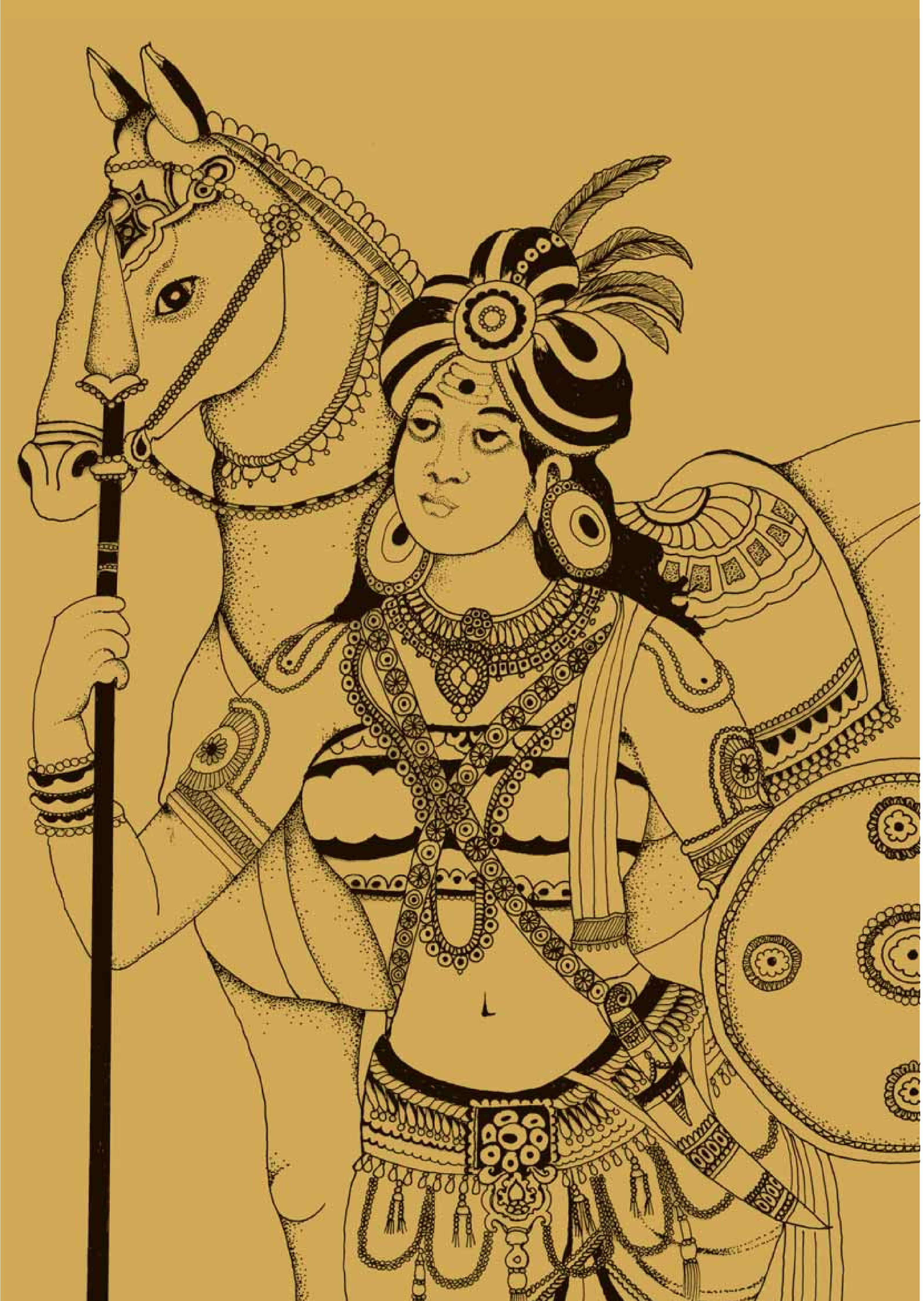
Bahmani Dynasty

In 1424 Warangal was reduced to a provincial governorship of the Bahamani sultans. In 1504 Shitab Khan managed to wrest the city from its Bahmani governor. He was the former Bahamani *amir* who established himself at the old Kakatiya capital. He proclaimed that he had restored the cults of three deities associated with the Kakatiya state.

The Bahamani Dynasty was established with Gulbarga as its capital. The Bahamani *subedar* of Telangana, Sultan Quli Qutb Shahi declared himself as an independent ruler. He ruled from Golconda, some 150km away southwest of Warangal. Since then the Telugu speaking region of Warangal, never received the glory importance as received during the Kakatiya era.



Map 2.6: Expansion of Bahamani and Vijayanagara Kingdoms | © Power, Architecture and Memory



2.b.ii. Kakatiya dynasty

a) Establishment of Kakatiya dynasty

Kakatiya Empire: Kakatiya chieftains first emerged as Chalukya feudatories in the mid- eleventh century and remained loyal to their overlords for over a hundred years, until 1163, when their ruling chief, Rudradeva (r.1156-95), began omitting references to his family's former overlords in Kalyana. It was Rudradeva's nephew Ganapati (r. 1199- 1262), however, who consolidated the kingdom by conquering coastal Andhra, bringing nearly all the Telugu- speaking eastern Deccan under his sway. Although Warangal is mentioned as the capital in Kakatiya inscriptions as early as Rudradeva's reign, Ganapati appears to have been responsible for rebuilding the city's inner wall, using enormous blocks of dressed granite.

b) Kakatiya Ganapatideva

Ganapatideva (1199-1261 CE.) was a great conqueror. By his prowess, he enlarged the frontiers of his kingdom up to the River Kaveri in the South and up to the sea in the east. In this task he was helped by a number of able generals and ministers, of whom Rudra of the Recharla family is famous. For the first time the Telugu speaking region got united under one unified rule. They were the first to build a capital in a drought prone area where no source of perennial water was received[42].

2.b.iii. Temple History

a) Recharla Rudra

The shrines at Palampet belong to the period of the Kakatiyas and constitute perhaps the finest examples of medieval Deccan Temples. The Temples of Palampet were the pious works of this chief, Recharla Rudra, in 1135 (1213 A.D) during the reign of Kakatiya Ganapatideva[43]. His inscription running to nearly 204 lines engraved on four sides of a polished basalt pillar now erected in a small *mandapa* within the courtyard of the temples enumerates the glorious achievements of this feudatory family and commemorates the construction of the main Temple at Palampet in Saka 1135 by Rudra[44].

It took around 40 years for the construction of the temple.

b) Inscription on the pillar

According to the inscription of the four sides of the slab setup in the madapa of the courtyard of the main temple, Recharla Rudra constructed a big tank and a town named Akunuru on the tank bund and the Temple of Rudreshwara in the town. He gifted two villages, named Upparapalli and Borlapalli, for the enjoyment of this god and Gaurisa[45] . He also constructed Katesvara and Kamesvara Temples on the either side of the Rudreshwara Temple, which is popularly known as Ramappa Temple.

2.b.iv. Development of the Kakatiya Architecture

The Kakatiyan Temples are influenced from its ancestors (Chalukyans).

The Thousand Pillar Temple and Swayambhu Temple were the initial Kakatiya Temple examples from which the Rudreshwara Temple has arrived.

Temple is not merely a place of worship but something more with cosmic and spiritual significance. The Hindu Temple is considered as the image of the Cosmic man called the *Vastu purush.*

Vastu is primarily the planned site of the building. Its shape is square as a rule and the full name is *Vastupurusamandala*. This name consists of three parts, Vastu, *Purusa* and *Mandala*. Vastuhere, is the extent of existence in its ordered state, and is beheld in the likeness of the *Purusa* or cosmic man. The form of the *Vastupurusamandala* is a square. The drawing of the *Vastupurusamandala* is imperative prior to building a temple. the elaboration of this concept seems to have been almost completed at the age of the '*Braht samhita*' and the '*Visnudharmottara*' and at the height of temple building activity about 1000 A.D the actual drawing of the diagram on the ground which the temple was to occupy seems to have been the practice. From the sketching of the cord, or the drawing of the lines of the *mandala*, every one of the movements is a rite and sustains the building. These movements, rites and meanings are not accessory and they go into the making of the temple, its shape and proportions and that of every carved detail and every figure, each at its proper place[46].

1. Trikuta plan form

Kakatiyas, the decendents of Chalukyas, followed the same principles, which were followed by their masters, while constructing numerous temples. But there is some difference in the plans as the Kakatiya ones were more superior to those of their masters. The temple plans of *ekakuta*, *dvikuta* and *trikuta* adopted by Kakatiyas are similar in the early stages which were gradually changed to stellate forms which were not appeared in the Chalukyan Temples. Provision of path for circumambulation around the main shrine, sufficient ventilation, creation of space for doorways, according to the principles of *manduka mandala*, were followed by the Kakatiya architects[47].

The temple architecture of 9th - 10th centuries CE. is represented by varied plans such as square, apsidal, rectangular and grouped around the main shrine. *Trikutas* came into existence for the first time[48].

The temples having stellate ground plan were introduced by the Chalukyan architects and later adopted by the Kakatiya architects. The Kakatiyan architects have articulated the built form very profusely in their own style which shows the interchange of architectural style forms[49].

2. Sculptures

The sculptures of Kakatiya reached its epoch during the 12th and 13th century. Prior to this period in the neighboring Hoyasala kingdom, a marvelous art form appeared during the 11th and 12th centuries. At Khajuraho in central India during 10th, 11th centuries a vibrant and robust sculpture evolved. Down south, the Pallava art of the 7th and 8th centuries is a pleasing form with naturalistic overtones. There is no similarity among all the three groups, and each one has an independent style of expression. Kakatiya style of art is entirely different from the above three styles.

For the first time in the history, a temple is popularly remembered by the name of its sculptor rather than the deity residing in the temple. This itself shows the importance laid down in the sculpture making of the temple.

3. Bracket figures

The concept of using bracket sculptures in the art can be an adaptation from Hoyasala architecture, but not the form. The form of the Kakatiya bracket figure is entirely different and much superior in composition. Bracket is an architectural element and its function was purely architectural. It was an oblong stone piece fixed between the pillar and the roof beam to give additional strength and stability at the joint. Later this architectural component spurred the imagination of the sculptor and the bracket figurine was born. Long before Hoyasalas, bracket sculpture appeared in some Chalukyan structures. Hoyasala artist has taken up this concept and developed into a sculptural marvel. They carved and fixed about forty beautiful damsels on the pillars of Chennakesava Temple at Belur and also at Halebid. In later times the bracket sculpture took the form of rampant lions, horses and elephants giving the impression of bearing the load of the roof.

4. Vimana

The Kakatiyas being the decendents of the Chalukyas adopted the style of *vimana* from the Chalukyas.

The Chalukyas Temples were of a thoroughly different style - one whose northern, Nagara affinities are as clear as the southern Dravidian style. The Vimana of the Chalukyas was a perfect amalgamation of the Northern and Southern typology of vimanas creating a new style called the *Vesara* type of *Vimana*. This amalgamation with a variation can be well seen it the Temple of Rudreswara.

2.b.v. Conservation works

The Rudreswara Temple was built with the ideology of being conserved for the future generations. This can be clearly found from the inscriptions on the inscription pillar in the temple premises where the Recharla Rudra had requested the visitors to preserve the monument for the generations to come[50].

After the fall of the Kakatiyan Dynasty there is no evidence of sustained maintenance over long periods of time. This has resulted in loosening and falling of elements and growth of trees and plants in the joints. Sometimes the roots have extended into the soil fill of the cavity walls, widening the cavity and destroying walls and other structural elements[51].

Rudreshwara (Ramappa) Temple has been under the care of the Archaeology Department since the early twentieth century. The change in political powers from the princely state of Nizam's to its integration into Indian Union, made a shift in the Archaeology Department i.e. from the Archaeology Department of Hyderabad to the Archaeological Survey of India.

In the beginning of the twentieth century, Telangana was a part of the Nizam's Domain.

In 1914, the Archaeological Department was established in Hyderabad. On the advice of the Director General of Archaeological Survey of India, Prof. Gulam Yazdani was appointed as its first Director. Since then the Preservation and conservation of the Rudreshwara Temple was being taken care by the Archaeological Department of Hyderabad.

Gulam Yazdani after his inspection had taken immediate measures to prevent the monument from falling by providing vertical masonry columns to support the falling *prastara*. These measures have saved the temple from depletion.

b. Archaeological survey of India (ASI)

The Archaeological Survey of India had overtaken the properties and works of the Archaeological Department of Hyderabad since the integration of the Princely state of Hyderabad into the Indian Union in the year 1948.

The main function of the Archaeological Survey of India is to explore, excavate, conserve, preserve and protect the monuments and sites of National and International Importance.

The day-to-day works conducted by the ASI are published in the series publication of 'Indian Archaeology: A Review' since 1953-54.

In 1991, ASI got a research report prepared by the Department of Civil Engineering, Regional Engineering College, Warangal on the 'Geotechnical Appraisal and Evaluation of Kakatiya Monuments'. This detailed research report has investigated on the construction techniques followed by the Kakatiyas at the Rudreshwara Temple, Thousand Pillared Temple, Hanumakonda and Warangal Fort.

ASI has done many conservations works till then for the betterment of the Temple. They have improved the *Nandimandapa*. Chemical cleaning of the sculptures has also taken place. Work on the *Prakara* wall is ongoing.

2.b.v. Present day

Rudreshwara (Ramappa) Temple, Palampet was enlisted in the tentative list by the UNESCO, World Heritage Centre on 15/04/2014 under the title **The Glorious Kakatiya Temples and Gateways** as a serial nomination along with Rudreshwara (Thousand Pillar) Temple, Hanumakonda and the Swayambhu Temple, Warangal Fort as in **whc. unesco.org/en/tentativelists/5889.**

The administering committee while preparing the nomination dossier had reevaluated the sites for protection and management and decided to compare but not to include in the sites of Rudreshwara (Thousand Pillar) Temple, Hanumakonda and Swayambhu Temple, Warangal Fort the nomination. As of now the authenticity of these sites cannot be presented in complete meaning and the integrity cannot be maintained with the issues pertaining to management of both the sites.

Swayambhu Temple, Warangal Fort had fallen down and mainly archaeological in nature, due to onslaught invasions from Delhi sultanate during 14th century AD, and as the conservation process needs a complete reassessment for authenticity of the temple ruins. Hence, it is not included the nomination.

Rudreshwara (Thousand Pillar) Temple has been encroached upon by a few settlements in and around the site making it difficult to manage the location and setting while managing the site. Hence, Thousand Pillar Temple was decided not to include in the nomination.

Therefore, **Rudreshwara (Ramappa) Temple** stands and fits into the criteria as a representative of "**The Glorious Kakatiya Temples and Gateways**".

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